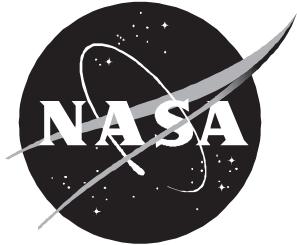


NASA/TM-2001-210657



NASA Langley Scientific and Technical Information Output—2000

*Harriet B. Machie and Susan H. Stewart, Compilers
Langley Research Center, Hampton, Virginia*

February 2001

The NASA STI Program Office . . . in Profile

Since its founding, NASA has been dedicated to the advancement of aeronautics and space science. The NASA Scientific and Technical Information (STI) Program Office plays a key part in helping NASA maintain this important role.

The NASA STI Program Office is operated by Langley Research Center, the lead center for NASA's scientific and technical information. The NASA STI Program Office provides access to the NASA STI Database, the largest collection of aeronautical and space science STI in the world. The Program Office is also NASA's institutional mechanism for disseminating the results of its research and development activities. These results are published by NASA in the NASA STI Report Series, which includes the following report types:

- **TECHNICAL PUBLICATION.** Reports of completed research or a major significant phase of research that present the results of NASA programs and include extensive data or theoretical analysis. Includes compilations of significant scientific and technical data and information deemed to be of continuing reference value. NASA counterpart of peer-reviewed formal professional papers, but having less stringent limitations on manuscript length and extent of graphic presentations.
- **TECHNICAL MEMORANDUM.** Scientific and technical findings that are preliminary or of specialized interest, e.g., quick release reports, working papers, and bibliographies that contain minimal annotation. Does not contain extensive analysis.
- **CONTRACTOR REPORT.** Scientific and technical findings by NASA-sponsored contractors and grantees.

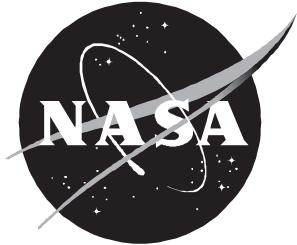
- **CONFERENCE PUBLICATION.** Collected papers from scientific and technical conferences, symposia, seminars, or other meetings sponsored or co-sponsored by NASA.
- **SPECIAL PUBLICATION.** Scientific, technical, or historical information from NASA programs, projects, and missions, often concerned with subjects having substantial public interest.
- **TECHNICAL TRANSLATION.** English-language translations of foreign scientific and technical material pertinent to NASA's mission.

Specialized services that complement the STI Program Office's diverse offerings include creating custom thesauri, building customized databases, organizing and publishing research results . . . even providing videos.

For more information about the NASA STI Program Office, see the following:

- Access the NASA STI Program Home Page at <http://www.sti.nasa.gov>
- Email your question via the Internet to help@sti.nasa.gov
- Fax your question to the NASA STI Help Desk at (301) 621-0134
- Telephone the NASA STI Help Desk at (301) 621-0390
- Write to:
NASA STI Help Desk
NASA Center for AeroSpace Information
7121 Standard Drive
Hanover, MD 21076-1320

NASA/TM-2001-210657



NASA Langley Scientific and Technical Information Output—2000

*Harriet B. Machie and Susan H. Stewart, Compilers
Langley Research Center, Hampton, Virginia*

National Aeronautics and
Space Administration

Langley Research Center
Hampton, Virginia 23681-2199

February 2001

Available from:

NASA Center for AeroSpace Information (CASI)
7121 Standard Drive
Hanover, MD 21076-1320
(301) 621-0390

National Technical Information Service (NTIS)
5285 Port Royal Road
Springfield, VA 22161-2171
(703) 605-6000

Available electronically at the following URL address: <http://techreports.larc.nasa.gov/ltrs>

Preface

This report contains a listing of the NASA Langley Research Center's publicly available scientific and technical research output for C.Y. 2000.

The intent of this report is to provide a greater awareness of the broad scope of results and the importance of the research and development work conducted by scientists and engineers at Langley. This current awareness is mandated by the National Aeronautics and Space Act of 1958, which provides for the widest practical dissemination of NASA research.

During C.Y. 2000, Langley's contributions to NASA and non-NASA literature included 6 Special Publications, 19 Technical Publications, 4 Conference Publications, 78 Technical Memorandums, 100 Contractor Reports, 134 Journal Articles and Book Publications, 512 Meeting Presentations, 48 Technical Talks, 4 Tech Briefs, and 28 Patents.

Introduction

The NASA Langley Research Center is one of the Nation's leading laboratories for research and development in the sciences of aeronautics and space technology. Langley conducts basic and applied research in the areas of aerospace systems, concepts, and analysis, aerodynamics, aerothermodynamics, and acoustics, structures and materials, airborne systems, atmospheric sciences, and systems engineering.

This document contains a bibliography of Langley's publicly available scientific and technical research output for 2000 which is processed through the Center's Office of the Chief Information Officer to become an integral part of NASA's Agency-wide Scientific and Technical Information (STI) system. The results of Langley's research are disseminated in a variety of NASA and non-NASA scientific and technical media and information systems. This document is intended to be a reference summary for researchers and a current awareness publication for the scientific, research, and academic community. Details of the availability of the research references in this document are found in the section, "Availability," on page vii.

Many Langley reports are available electronically on the Langley Technical Report Server (LTRS) at <http://techreports.larc.nasa.gov/ltrs/ltrs.html> or the Institute for Computer Applications in Science and Engineering (ICASE) Technical Report Server (ITRS) at <http://www.icase.edu/docs/library/itrs.html> via the World Wide Web (WWW). The relative Uniform Resource Locators are noted below citations for reports available electronically.

The citations are grouped by the Scientific and Technical Aerospace Reports (STAR) subject categories and listed alphabetically by author or innovator. The Langley organization to which the senior author or innovator is assigned and the Research and Technology Objectives and Plans (RTOP) number are noted below citations when appropriate and included in the indexes.

Patents listed are those which were issued in 2000 and owned by Langley Research Center.

Publication of some journal articles was not known at press time for the 1999 issue of this document. These articles are therefore listed in the 2000 issue.

Availability

<u>Category</u>	<u>Source</u>
NASA Reports	NASA Center for AeroSpace Information (CASI) 7121 Standard Drive Hanover, MD 21076-1320 (301) 621-0390
	National Technical Information Service (NTIS) 5285 Port Royal Road Springfield, VA 22161-2171 (703) 605-6000
Patents:	
Patent Application Specifications	NASA Center for AeroSpace Information (CASI)
	National Technical Information Service (NTIS)
Printed Copies	Commissioner of Patents and Trademarks U.S. Patent and Trademark Office Washington, DC 20231

Contents

Preface	iii
Introduction	v
Availability	vii

Aeronautics

Category 01 Aeronautics (General)	1
Category 02 Aerodynamics	2
Category 03 Air Transportation and Safety	7
Category 04 Aircraft Communications and Navigation	13
Category 05 Aircraft Design, Testing and Performance	13
Category 07 Aircraft Propulsion and Power	20
Category 08 Aircraft Stability and Control	21
Category 09 Research and Support Facilities (Air)	22

Astronautics

Category 12 Astronautics (General)	24
Category 13 Astrodynamics	24
Category 15 Launch Vehicles and Space Vehicles	24
Category 16 Space Transportation	26
Category 18 Spacecraft Design, Testing and Performance	26
Category 19 Spacecraft Instrumentation	29
Category 20 Spacecraft Propulsion and Power	29

Chemistry and Materials

Category 23 Chemistry and Materials (General)	29
Category 24 Composite Materials	29
Category 25 Inorganic and Physical Chemistry	33
Category 26 Metallic Materials	33
Category 27 Nonmetallic Materials	36
Category 29 Materials Processing	43

Engineering

Category 31 Engineering (General)	43
Category 32 Communications and Radar	44
Category 33 Electronics and Electrical Engineering	44
Category 34 Fluid Mechanics and Heat Transfer	46

Category 35 Instrumentation and Photography . . . . .	.53
Category 36 Lasers and Masers . . . . .	.56
Category 37 Mechanical Engineering . . . . .	.58
Category 38 Quality Assurance and Reliability . . . . .	.58
Category 39 Structural Mechanics . . . . .	.59

Geosciences

Category 42 Geosciences (General) . . . . .	.66
Category 43 Earth Resources and Remote Sensing. . . . .	.68
Category 44 Energy Production and Conversion . . . . .	.70
Category 45 Environment Pollution . . . . .	.70
Category 46 Geophysics . . . . .	.70
Category 47 Meteorology and Climatology . . . . .	.74

Life Sciences

Category 52 Aerospace Medicine . . . . .	.87
Category 53 Behavioral Sciences . . . . .	.87
Category 54 Man/System Technology and Life Support . . . . .	.87
Category 55 Space Biology . . . . .	.88

Mathematical and Computer Sciences

Category 59 Mathematical and Computer Sciences (General) . . . . .	.88
Category 60 Computer Operations and Hardware . . . . .	.88
Category 61 Computer Programming and Software . . . . .	.90
Category 62 Computer Systems. . . . .	.91
Category 63 Cybernetics . . . . .	.91
Category 64 Numerical Analysis . . . . .	.92
Category 66 Systems Analysis . . . . .	.97

Physics

Category 70 Physics (General) . . . . .	.97
Category 71 Acoustics . . . . .	.98
Category 72 Atomic and Molecular Physics	104
Category 74 Optics	106
Category 75 Plasma Physics	108
Category 76 Solid-State Physics	108
Category 77 Thermodynamics and Statistical Physics.	109

Social Sciences

Category 80 Social Sciences (General)	110
Category 82 Documentation and Information Science.	110
Category 83 Economics and Cost Analysis	111

Space Sciences

Category 88 Space Sciences (General)	112
Category 91 Lunar and Planetary Exploration	112
Category 93 Space Radiation	113

General

Category 99 General	116
Author Index	117
Organization Index.	134
RTOP Index	137

Scientific and Technical Publications

Aeronautics

Category 01 Aeronautics (General)

- 1 Chambers, J. R.: Partners in Freedom: Contributions of the Langley Research Center to U.S. Military Aircraft of the 1990's. NASA/SP-2000-4519, October 2000, 269 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/spec/NASA-2000-sp4519.pdf>
Organization OD RTOP 522-24-11

- 2 Ferlemann, S. M.; Robinson, J. S.; Martin, J. G.; Leonard, C. P.; Taylor, L. W., III; and Kamhawi, H.: Developing Conceptual Hypersonic Airbreathing Engines Using Design of Experiments Methods. Presented at 21st AIAA Aerodynamic Measurement Technology and Ground Testing Conference, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2694.
Organization RA RTOP 242-36-10

- 3 Hunt, J. L.: Airbreathing Hypersonics at Langley: Capabilities, Study Activities and Hyper-X. Presented at Data Exchange Agreement Meeting, October 15-20, 2000, Paris, France.
Organization RA RTOP 282-10-01

- 4 Jones, G. S.; Bangert, L. S.; Garber, D. P.; Huebner, L. D.; McKinley, R. E., Jr.; Sutton, K.; Swanson, R. C., Jr.; and Weinstein, L. M.: Research Opportunities in Advanced Aerospace Concepts. NASA/TM-2000-210547, December 2000, 68 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210547.pdf>
Organization RB RTOP 522-17-41

- 5 Kincaid, R. K.; Weber, M.; and Sobieszczanski-Sobieski, J.: Performance of a Bell-Curve Based Evolutionary Optimization Algorithm. Presented at 41st AIAA/ASME/ASCE/AHS/ ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia.
Organization RA RTOP 509-10-31

- 6 Pierce, R. B.; Al-Saadi, J. A.; Natarajan, M.; Fairlie, T. D.; Harvey, V. L.; Grose, W. L.; Russell, J. M., III; Bevilacqua, R. M.; and Eckerman, S.: Large-Scale Chemical Evolution of the Northern Hemisphere Polar Vortex During the 1999-2000 Winter: HALOE/POAM3 Lagrangian Photochemical Modeling for the SAGE III Ozone Loss and Validation Experiment (SOLVE) Campaign. Presented at SOLVE Workshop, September 25-29, 2000, Palermo, Italy.
Organization RE RTOP 622-57-35

- 7** Rizzi, S. A.: Improvements to Progressive Wave Tube Performance Through Closed-Loop Control. NASA/TM-2000-210623, October 2000, 55 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210623.pdf>
Organization RB RTOP 522-81-12
- 8** Sobiesczanski-Sobieski, J.; Kodiyalam, S.; and Yang, R-J.: Optimization of Car Body Under Constraints of Noise, Vibrations, and Harshness (NVH), and Crash. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1521.
Organization RA RTOP 509-10-31

Category 02 Aerodynamics

- 9** Anders, J. B., Jr.: Biomimetic Flow Control. Presented at Fluids 2000 Conference and Exhibit, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2543.
Organization RB RTOP 522-32-21
- 10** Antcliff, R. R.; and McGowan, A. R.: Active Control Technology at NASA Langley Research Center. Presented at NATO Symposium on Active Control Technology for Enhanced Performance Operational Capabilities of Military Aircraft, Land Vehicles, & Sea Vehicles, May 8-11, 2000, Braunschweig, Germany.
Organization OD RTOP 552-32-21
- 11** Asbury, S. C.; and Yetter, J. A.: Static Performance of Six Innovative Thrust Reverser Concepts for Subsonic Transport Applications—Summary of the NASA Langley Innovative Thrust Reverser Test Program. NASA/TM-2000-210300, July 2000, 369 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210300.pdf>
Organization RB RTOP 522-25-31
- 12** Banks, D. W.; and Kelley, H. L.: Exploratory Investigation of Aerodynamic Characteristics of Helicopter Tail Boom Cross-Section Models With Passive Venting. NASA/TP-2000-210083, AMCOM-AFDD/TR-00-A-007, June 2000, 53 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp210083.pdf>
Organization RB RTOP 581-10-11
- 13** Bartels, R. E.: Mesh Strategies for Accurate Computation of Unsteady Spoiler and Aeroelastic Problems. *Journal of Aircraft*, Volume 37, No. 3, May–June 2000, p. 521-525.
Organization RC RTOP 522-31-81
- 14** Bartels, R. E.; and Gatski, T. B.: Prediction of Transonic Vortex Flows Using Linear and Nonlinear Turbulent Eddy Viscosity Models. NASA/TM-2000-210282, May 2000, 35 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210282.pdf>
Organization RC RTOP 522-31-21

- 15** Bartels, R. E.; and Schuster, D. M.: Comparison of Two Navier-Stokes Methods With Benchmark Active Technology Experiments. *Journal of Guidance, Control, and Dynamics*, Volume 23, No. 6, November–December 2000, p. 1094-1099.
Organization RC RTOP 522-31-81
- 16** Birch, T. J.; Allen, J. M.; and Wilcox, F. J., Jr.: Force, Surface Pressure and Flowfield Measurements on Slender Missile Configurations at Supersonic Speeds. Presented at 18th AIAA Applied Aerodynamics Conference and Exhibit, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4207.
Organization RB RTOP 522-25-31
- 17** Bobbitt, C. W.; Everhart, J. L.; Foster, J. M.; Hill, J. S.; McHatton, J. R.; and Tomek, W. G.: National Transonic Facility Characterization Status. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0293.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0293.pdf>
Organization RB RTOP 522-31-31
- 18** Bounajem, E.; and Buning, P. G.: Prediction of Business Jet Airloads Using the Overflow Navier-Stokes Code. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0123.
Organization RB RTOP 522-31-61
- 19** Boyd, D. D., Jr.; Barnwell, R. W.; and Gorton, S. A.: A Computational Model for Rotor-Fuselage Interactional Aerodynamics. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0256.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0256.pdf>
Organization RB RTOP 581-10-11
- 20** Buck, G. M.: Simultaneous Global Pressure and Temperature Measurement Technique for Hypersonic Wind Tunnels. Presented at 21st AIAA Aerodynamic Measurement Technology and Ground Testing Conference, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2649.
Organization RB RTOP 242-80-01
- 21** Buning, P. G.: Status and Recent Applications of OVERFLOW. Presented at 5th Symposium on Overset Grids & Solution Technology, September 18-20, 2000, Davis, California.
Organization RB RTOP 522-31-11
- 22** Buning, P. G.; Wong, T-C.; Dilley, A. D.; and Pao, J. L.: Prediction of Hyper-X Stage Separation Aerodynamics Using CFD. Presented at 18th AIAA Applied Aerodynamics Conference and Exhibit, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4009.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-4009.pdf>
Organization RB RTOP 522-51-71

- 23** Chen, F-J.; Yao, C-S.; Beeler, G. B.; Bryant, R. G.; and Fox, R. L.: Development of Synthetic Jet Actuators for Active Flow Control at NASA Langley. Presented at Fluids 2000 Conference and Exhibit, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2405.
Organization RB RTOP 522-32-31
- 24** Cockrell, C. E., Jr.; Engelund, W. C.; Bittner, R. D.; Dilley, A. D.; Jentink, T. N.; and Frendi, A.: Integrated Aero-Propulsive CFD Methodology for the Hyper-X Flight Experiment. Presented at 18th AIAA Applied Aerodynamics Conference and Exhibit, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4010.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-4010.pdf>
Organization RB RTOP 706-51-31
- 25** Croom, M. A.; Kenney, H. M.; Murri, D. G.; and Lawson, K. P.: Research on the F/A-18E/F Using a 22%-Dynamically-Scaled Drop Model. Presented at AIAA Atmospheric Flight Mechanics Conference, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-3913.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-3913.pdf>
Organization RD RTOP 522-25-21
- 26** Deere, K. A.: Computational Investigation of the Aerodynamic Effects on Fluidic Thrust Vectoring. Presented at 36th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, July 17-19, 2000, Huntsville, Alabama. AIAA Paper No. 2000-3598.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-3598.pdf>
Organization RB RTOP 522-32-21
- 27** Engelund, W. C.; Holland, S. D.; Cockrell, C. E., Jr.; and Bittner, R. D.: Aerodynamic Database Development for the Hyper-X Airframe Integrated Scramjet Propulsion Experiments. Presented at 18th AIAA Applied Aerodynamics Conference and Exhibit, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4006.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-4006.pdf>
Organization RA RTOP 522-51-71
- 28** Erickson, G. E.: Overview of Selected Measurement Techniques for Aerodynamics Testing in the NASA Langley Unitary Plan Wind Tunnel. Presented at Fluids 2000 Conference and Exhibit, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2396.
Organization RF RTOP 242-33-03
- 29** Erickson, G. E.: Effects of Passive Porosity on Interacting Vortex Flows at Supersonic Speeds. Presented at 9th International Symposium on Flow Visualization, August 22-25, 2000, Edinburgh, Scotland.
Organization RB RTOP 242-33-03
- 30** Frink, N. T.; Pirzadeh, S. Z.; Parikh, P. C.; Pandya, M. J.; and Bhat, M. K.: The NASA Tetrahedral Unstructured Software System (TetrUSS). Presented at 22nd Congress of the International Council of the Aeronautical Sciences, August 27–September 1, 2000, Harrogate, United Kingdom. In Proceedings, ICAS Paper No. 0241.
Organization RB RTOP 522-32-21

- 31** Frink, N. T.; Pirzadeh, S. Z.; Parikh, P. C.; Pandya, M. J.; and Bhat, M. K.: The NASA Tetrahedral Unstructured Software System (TETRUSS). *The Aeronautical Journal*, Volume 104, No. 1040, October 2000, p. 491-499.
Organization RB RTOP 706-31-21
- 32** Gatski, T. B.: Develop Transition Sensitized Turbulence Models. Presented at Royal Institute of Technology Seminar, February 21-26, 2000, Stockholm, Sweden.
Organization RB RTOP 522-23-11
- 33** Holland, S. D.; Woods, W. C.; and Engelund, W. C.: Hyper-X Research Vehicle (HXRV) Experimental Aerodynamics Test Program Overview. Presented at 18th AIAA Applied Aerodynamics Conference and Exhibit, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4011.
Organization RB RTOP 242-80-01
- 34** Kumar, A.; and Hefner, J. N.: Future Challenges and Opportunities in Aerodynamics. Presented at 22nd Congress of the International Council of the Aeronautical Sciences, August 27–September 1, 2000, Harrogate, United Kingdom. ICAS Paper No. 2000-0.2.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-22cicas-ak.pdf>
Organization RB RTOP 538-03-11
- 35** Kvaternik, R. G.: Computer Programs for Calculating the Isentropic Flow Properties for Mixtures of R-134a and Air. NASA/TM-2000-210622, November 2000, 127 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210622.pdf>
Organization RC RTOP 522-31-21
- 36** Lessard, W. B.: Analysis of Post-Support and Wind-Tunnel Wall Interference on Flow Field About Subsonic High-Lift High-Speed Research Configuration. NASA/TP-2000-210555, November 2000, 45 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp210555.pdf>
Organization RB RTOP 537-07-51
- 37** Liou, M-S.; and Buning, P. G.: Contribution of the Recent AUSM Schemes to the Overflow Code: Implementation and Validation. Presented at 18th AIAA Applied Aerodynamics Conference and Exhibit, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4404, In Proceedings, Volume 2, p. 647-664.
Organization RB RTOP 522-31-11
- 38** Milholen, W. E., II: An Efficient Inverse Aerodynamic Design Method for Subsonic Flows. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0780.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0780.pdf>
Organization RB RTOP 522-11-81

- 39** Mineck, R. E.: Reynolds Number Effects on the Performance of Lateral Control Devices. NASA/TM-2000-210541, October 2000, 144 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210541.pdf>
Organization RB RTOP 992-20-08
- 40** Mineck, R. E.; and Gorton, S. A.: Steady and Periodic Pressure Measurements on a Generic Helicopter Fuselage Model in the Presence of a Rotor. NASA/TM-2000-210286, June 2000, 188 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210286.pdf>
Organization RB RTOP 581-10-11
- 41** Mineck, R. E.; and Pendergraft, O. C., Jr.: Test-to-Test Repeatability of Results From a Subsonic Wing-Body Configuration in the National Transonic Facility. NASA/TM-2000-210079, March 2000, 81 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210079.pdf>
Organization RB RTOP 538-14-12
- 42** Pack, L. G.; and Seifert, A.: Dynamics of Active Separation Control at High Reynolds Numbers. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0409.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0409.pdf>
Organization RB RTOP 522-32-31
- 43** Pamadi, B. N.; Brauckmann, G. J.; Ruth, M.; and Fuhrmann, H. D.: Aerodynamic Characteristics, Database Development and Flight Simulation of the X-34 Vehicle. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0900.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0900.pdf>
Organization RA RTOP 242-33-01
- 44** Paschal, K. B.; Jenkins, L. N.; and Yao, C-S.: Unsteady Slat-Wake Characteristics of a High-Lift Configuration. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0139.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0139.pdf>
Organization RB RTOP 522-31-61
- 45** Pirzadeh, S. Z.: A Solution Adaptive Technique Using Tetrahedral Unstructured Grids. Presented at 22nd Congress of the International Council of the Aeronautical Sciences, August 27–September 1, 2000, Harrogate, United Kingdom. ICAS Paper No. 2000-2.4.4.
Organization RB RTOP 522-22-31
- 46** Pirzadeh, S. Z.: A Solution Adaptive Unstructured Grid Method by Grid Subdivision and Local Remeshing. *Journal of Aircraft*, Volume 37, No. 5, September–October 2000, p. 818-824.
Organization RB RTOP 522-22-31

- 47** Rumsey, C. L.; Gatski, T. B.; and Morrison, J. H.: Turbulence Model Predictions of Strongly Curved Flow in a U-Duct. *AIAA Journal*, Volume 38, No. 8, August 2000, p. 1394-1402.
 Organization RB RTOP 522-31-61
- 48** Samareh, J. A.: Grid Generation for Multidisciplinary Design and Optimization of an Aerospace Vehicle—Issues and Challenges. Presented at 7th International Conference on Numerical Grid Generation in Computational Field Simulation, September 25-28, 2000, Whistler, British Columbia, Canada.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-7icnggc-jas.pdf>
 Organization RA RTOP 509-10-11
- 49** Van Dam, C. P.; DalBello, T.; Duque, E. P.; and Fremaux, C. M.: Computational Study of Rotary Tests on Forebody Models. Presented at AIAA Atmospheric Flight Mechanics Conference, August 14-17, 2000, Denver, Colorado. AIAA Paper 2000-4105.
 Organization RD RTOP 522-31-31
- 50** Wang, Q.; Massey, S. J.; and Abdol-Hamid, K. S.: Implementation of Advanced Two Equation Turbulence Models in the USM3D Unstructured Flow Solver. (NAS4-50066 Analytical Services & Materials, Inc.) NASA/CR-2000-210102, April 2000, 36 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210102.pdf>
 Organization RB RTOP 522-31-21
- 51** Wood, R. M.; and Bauer, S. X.: Flying Wings/Flying Fuselages (FW/FF)—A Look at the Past and a Vision of the Future. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0800.
 Organization RB RTOP 522-21-51
- 52** Wood, R. M.; Bauer, S. X.; and Wilcox, F. J., Jr.: High Speed Vortex Flows. Presented at Fluids 2000 Conference and Exhibit, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2215.
 Organization RB RTOP 522-25-31
- 53** Woods, W. C.; Holland, S. D.; and DiFulvio, M.: Hyper-X Stage Separation Wind Tunnel Test Program. Presented at 18th AIAA Applied Aerodynamics Conference and Exhibit, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4008.
 Organization RB RTOP 242-80-01

Category 03 Air Transportation and Safety

- 54** Clowdsley, M. S.; Wilson, J. W.; Kim, M-H.; Singletary, R. C., Jr.; Tripathi, R. K.; Heinbockel, J. H.; Badavi, F. F.; and Shinn, J. L.: Neutron Environments on the Martian Surface. Presented at 1st International Workshop on Space Radiation Research, May 28-31, 2000, Arona, Italy.
 Organization RC RTOP 101-21-23

- 55** Cooper, E. G.; and Kent, R. M.: Airframe Structure Health Management Research in NASA's Aviation Safety Program. Presented at Ninth Annual Research Symposium of the American Society for Nondestructive Testing, March 27-31, 2000, Birmingham, Alabama.
Organization RD RTOP 577-30-10
- 56** Elliott, D. M.; and Perry, R. B.: NASA Research for Instrument Approaches to Closely Spaced Parallel Runways. Presented at AIAA Guidance, Navigation, and Control Conference, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4358.
Organization RD RTOP 576-02-11
- 57** Gorton, S. A.; Berry, J. D.; Hodges, W. T.; and Reis, D. G.: Flow Environment Study Near the Empennage of a 15-Percent Scale Helicopter Model. NASA/TP-2000-210085, AFDD/TR-00-A-004, March 2000, 30 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp210085.pdf>
Organization RB RTOP 581-10-11
- 58** Hamilton, D. W.; and Proctor, F. H.: Wake Vortex Transport in Proximity to the Ground. Presented at 19th Digital Avionics Systems Conference, October 7-13, 2000, Philadelphia, Pennsylvania.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-19dasc-dwh.pdf>
Organization RD RTOP 576-02-11
- 59** Han, J.; Arya, S. P.; Shen, S.; and Lin, Y-L.: An Estimation of Turbulent Kinetic Energy and Energy Dissipation Rate Based on Atmospheric Boundary Layer Similarity Theory. (NCC1-188 North Carolina State University.) NASA/CR-2000-210298, June 2000, 35 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210298.pdf>
Organization RD RTOP 576-02-11
- 60** Hinton, D. A.: Development of an Integrated Wake Vortex Spacing System. Presented at XXV General Assembly Millennium Conference on Earth, Planetary & Solar Systems Sciences, April 25-29, 2000, Nice, France.
Organization RD RTOP 576-02-11
- 61** Hinton, D. A.; Charnock, J. K.; and Bagwell, D. R.: Design of an Aircraft Vortex Spacing System for Airport Capacity Improvement. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0622.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0622.pdf>
Organization RD RTOP 576-02-11
- 62** Hinton, D. A.; and O'Connor, C. J.: Development of a Wake Vortex Spacing System for Aircraft Capacity Enhancement and Delay Reduction. Presented at 19th Digital Avionics Systems Conference, October 7-13, 2000, Philadelphia, Pennsylvania. In Proceedings, Paper No. 3E6.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-19dasc-dah.pdf>
Organization RD RTOP 576-02-11

- 63** Jonsson, J. E.: Efforts to Reduce Aircraft Accident Rates Through Improved Flight Weather Dissemination. Presented at Guild of Air Pilots and Air Navigators Meeting, October 17, 2000, London, England.
Organization RD RTOP 577-40-10
- 64** Keel, B. M.; Stancil, C. E.; Eckert, C. A.; Brown, S. M.; Gimmestad, G. G.; and Richards, M. A.: Aviation Weather Information Requirements Study. (NAS1-99073 Georgia Tech Research Institute.) NASA/CR-2000-210288, June 2000, 178 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210288.pdf>
Organization RD RTOP 577-40-10
- 65** Kent, R. M.; and Murphy, D. A.: Health Monitoring System Technology Assessments—Cost Benefits Analysis. (L69620D ARINC, Inc.) NASA/CR-2000-209848, January 2000, 171 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr209848.pdf>
Organization RD RTOP 728-30-10
- 66** Kramer, L. J.; and Busquets, A. M.: Comparison of Pilots' Situational Awareness While Monitoring Autoland Approaches Using Conventional and Advanced Flight Display Formats. NASA/TP-2000-210284, May 2000, 125 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp210284.pdf>
Organization RD RTOP 522-19-11
- 67** Kramer, L. J.; and Norman, R. M.: High-Speed Research Surveillance Symbology Assessment Experiment. NASA/TM-2000-210107, April 2000, 68 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210107.pdf>
Organization RD RTOP 577-60-10
- 68** Lin, Y-L.; Han, J.; Zhang, J.; Ding, F.; Arya, S. P.; and Proctor, F. H.: Large Eddy Simulation of Wake Vortices in the Convective Boundary Layer. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0753.
<ftp://techreports.larc.nasa.gov/pub/techreports/larc/2000/aiaa/NASA-aiaa-2000-0753.ps.Z>
Organization RD RTOP 576-02-11
- 69** Munns, T. E.; Beard, R. E.; Culp, A. M.; Murphy, D. A.; and Kent, R. M.: Analysis of Regulatory Guidance for Health Monitoring. (L-10059 ARINC, Inc.) NASA/CR-2000-210643, December 2000, 81 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210643.pdf>
Organization RD RTOP 728-30-10
- 70** Palmer, M. T.; Chappell, A. R.; Thurman, D. A.; and Mitchell, C. M.: GT-Comet: An Architecture to Enhance Error Tolerance in Safety-Critical Systems. Presented at IEA 2000/HFES 2000 Congress, July 30–August 4, 2000, San Diego, California. In Proceedings, p. 258-261.
Organization RD RTOP 522-14-11

- 71** Prinzel, L. J., III; Comstock, J. R., Jr.; Elliott, D. M.; Kramer, L. J.; Glaab, L. J.; and Parrish, R. V.: The NASA Synthetic Vision Systems Research Project. Presented at The Fourth Automation Technology and Human Performance Conference, October 15-19, 2000, Savannah, Georgia. In Proceedings.
Organization RD RTOP 577-60-10
- 72** Prinzel, L. J., III; and Pope, A. T.: The Double-Edged Sword of Self-Efficacy: Implications for Automation-Induced Complacency. Presented at IEA 2000/HFES 2000 Congress, July 30–August 4, 2000, San Diego, California. In Proceedings, Volume 3.
Organization RD RTOP 728-60-10
- 73** Prior, E. J.; and Hahne, D. E.: Small Aircraft Transportation System. Presented at MIT Emerging Technologies Seminar, November 17, 2000, Dublin, Ireland.
Organization SH RTOP 282-10-08
- 74** Prior, E. J.; and Massenberg, S. E.: Advanced Aviation Aircraft. Presented at Institute of Irish Mechanical Engineers, November 16, 2000, Dublin, Ireland.
Organization SH RTOP 282-10-08
- 75** Proctor, F. H.; Hamilton, D. W.; and Han, J.: Wake Vortex Transport and Decay in Ground Effect: Vortex Linking With the Ground. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0757.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0757.pdf>
Organization RD RTOP 576-02-11
- 76** Proctor, F. H.; Hamilton, D. W.; Han, J.; and Switzer, G. F.: Simulations of Wake Vortex Decay in the Atmosphere. Presented at XXV General Assembly Millennium Conference on Earth, Planetary & Solar Systems Sciences, April 25-29, 2000, Nice, France.
Organization RD RTOP 576-02-11
- 77** Proctor, F. H.; Hinton, D. A.; and Bowles, R. L.: A Windshear Hazard Index. Presented at Ninth Conference on Aviation, Range and Aerospace Meteorology, September 11-15, 2000, Orlando, Florida. In Proceedings, Paper No. 7.7, p. 482-487.
Organization RD RTOP 576-02-11
- 78** Proctor, F. H.; and Switzer, G. F.: Numerical Simulation of Aircraft Trailing Vortices. Presented at Ninth Conference on Aviation, Range and Aerospace Meteorology, September 11-15, 2000, Orlando, Florida. In Proceedings, Paper No. 7-12, p. 511-516.
Organization RD RTOP 576-02-11
- 79** Riddick, S. E.; and Hinton, D. A.: An Initial Study of the Sensitivity of Aircraft Vortex Spacing System (AVOSS) Spacing Sensitivity to Weather and Configuration Input Parameters. NASA/TM-2000-209849, January 2000, 26 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209849.pdf>
Organization RD RTOP 576-02-11

- 80** Rine, L. L.; Abbott, T. S.; Lohr, G. W.; Elliott, D. M.; Waller, M. C.; and Perry, R. B.: The Flight Deck Perspective of the NASA Langley AILS Concept. NASA/TM-2000-209841, January 2000, 50 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209841.pdf>
Organization RD RTOP 576-02-11
- 81** Samanant, P.; and Jackson, M.: Description of the AILS Alerting Algorithm. (L10690 Honeywell, Inc.) NASA/CR-2000-210109, May 2000, 88 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210109.pdf>
Organization RD RTOP 576-02-11
- 82** Singer, B. A.; Brentner, K. S.; Lockard, D. P.; and Lilley, G. M.: Simulation of Acoustic Scattering From a Trailing Edge. *Journal of Sound and Vibration*, Volume 230, No. 3, February 24, 2000, p. 541-560.
Organization RB RTOP 522-31-61
- 83** Stewart, E. C.: A Study of Airline Passenger Susceptibility to Atmospheric Turbulence Hazards. Presented at AIAA Atmospheric Flight Mechanics Conference, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-3978.
Organization RD RTOP 577-40-30
- 84** Stewart, E. C.: Airline Passenger Susceptibility to Atmospheric Turbulence Hazards. Presented at Weather Accident Prevention Annual Project Review, May 23-25, 2000, Hampton, Virginia.
Organization RD RTOP 577-40-30
- 85** Stough, H. P., III; and DiCarlo, D. J.: Spin Resistance Development for Small Airplanes—A Retrospective. Presented at 2000 SAE General, Corporate, and Regional Aviation Meeting and Exposition, May 9-11, 2000, Wichita, Kansas.
Organization RD RTOP 577-40-10
- 86** Stough, H. P., III; Shafer, D. B.; and Schaffner, P. R.: Aviation Weather Information: Weather Accident Prevention Annual Review. Presented at Weather Accident Prevention Annual Project Review, May 23-25, 2000, Hampton, Virginia.
Organization RD RTOP 577-40-10
- 87** Stough, H. P., III; Shafer, D. B.; Schaffner, P. R.; and Martzaklis, K. S.: Reducing Aviation Weather-Related Accidents Through High-Fidelity Weather Information Distribution and Presentation. Presented at 22nd Congress of the International Council of the Aeronautical Sciences, August 27–September 1, 2000, Harrogate, United Kingdom. In Proceedings, Paper No. ICAS-2000-6.5.1.
Organization RD RTOP 577-40-10
- 88** Stuever, R. A.: Turbulence Mitigation Overview. Presented at Weather Accident Prevention Annual Project Review, May 23-25, 2000, Hampton, Virginia.
Organization RD RTOP 577-80-40

- 89** Stuever, R. A.; and Rickard, S. J.: B757 Flight Experiments Overview. Presented at Weather Accident Prevention Annual Project Review, May 23-25, 2000, Hampton, Virginia.
Organization RD RTOP 577-40-30
- 90** Switzer, G. F.; and Proctor, F. H.: Numerical Study of Wake Vortex Behavior in Turbulent Domains With Ambient Stratification. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0755.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0755.pdf>
Organization RD RTOP 576-02-11
- 91** Trujillo, A. C.; and Schutte, P. C.: Mission Status Graphics: A Quick Look at How You Are Doing. Presented at IEA 2000/HFES 2000 Congress, July 30–August 4, 2000, San Diego, California.
Organization RD RTOP 706-11-31
- 92** Waller, M. C.; Doyle, T. M.; and McGee, F. G.: An Analysis of the Role of ATC in the AILS Concept. NASA/TM-2000-210091, April 2000, 100 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210091.pdf>
Organization RD RTOP 728-60-10
- 93** Winder, L. F.; and Kuchar, J. K.: Performance Evaluation of Evasion Maneuvers for Parallel Approach Collision Avoidance. (NAG1-1974 Massachusetts Institute of Technology.) NASA/CR-2000-210099, August 2000, 72 p.
Organization RD RTOP 576-02-11
- 94** Young, S. D.: DTED Integrity Monitoring Using Differential GPS and Radar Altimeter. Presented at International Association of Institutes of Navigation 25th Anniversary Congress, June 26-28, 2000, San Diego, California.
Organization RD RTOP 538-04-13
- 95** Zak, J. A.; and Rodgers, W. G., Jr.: Atmospheric Boundary Layer Wind Data During the Period January 1, 1998 Through January 31, 1999 at the Dallas-Fort Worth Airport: Volume 1—Quality Assessment. (NAS1-96014 Lockheed Martin Engineering and Sciences.) NASA/CR-2000-210323/VOL1, August 2000, 21 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210323vol1.pdf>
Organization RD RTOP 576-02-11
- 96** Zak, J. A.; and Rodgers, W. G., Jr.: Atmospheric Boundary Layer Wind Data During the Period January 1, 1998 Through January 31, 1999 at the Dallas-Fort Worth Airport: Volume 2—Data and Processing. (NAS1-96014 Lockheed Martin Engineering and Sciences.) NASA/CR-2000-210323/VOL2, August 2000, 232 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210323vol2.pdf>
Organization RD RTOP 576-02-11

Category 04 Aircraft Communications and Navigation

- 97** Deshpande, M. D.; Cockrell, C. R.; and Beck, F. B.: Electromagnetic Coupling to a Wire Residing Inside a Rectangular Metallic Box Perforated With Rectangular Apertures. Presented at 2000 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting, July 16-21, 2000, Salt Lake City, Utah.
Organization RD RTOP 522-31-21
- 98** Reddy, C. J.: User's Manual for PCSMS (Parallel Complex Sparse Matrix Solver) Version 1.0. (NCC1-366 Hampton University.) NASA/CR-2000-210537, October 2000, 17 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210537.pdf>
Organization RD RTOP 522-31-21
- 99** Reddy, C. J.; Cockrell, C. R.; and Beck, F. B.: Matrix Solvers for Computational Electromagnetics. Presented at 2000 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting, July 16-21, 2000, Salt Lake City, Utah.
Organization RD RTOP 522-31-21

Category 05 Aircraft Design, Testing and Performance

- 100** Alexandrov, N. M.; Lewis, R. M.; Gumbert, C. R.; Green, L. L.; and Newman, P. A.: Optimization With Variable-Fidelity Models Applied to Wing Design. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0841.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0841.pdf>
Organization RA RTOP 522-31-81
- 101** Bement, L. J.: Explosive Fracturing of an F-16 Canopy for Through-Canopy Crew Egress. Presented at 38th Annual SAFE Symposium, October 9-11, 2000, Reno, Nevada. In Proceedings.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-38ass-ljb.pdf>
Organization RF RTOP 505-68-30
- 102** Bennett, R. M.; and Edwards, J. W.: An Overview of Unsteady Pressure Measurements in the Transonic Dynamics Tunnel. Presented at AIAA Dynamics Specialists Conference, April 5-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1770.
Organization RC RTOP 522-31-81
- 103** Bennett, R. M.; Scott, R. C.; and Wieseman, C. D.: Computational Test Cases for the Benchmark Active Controls Model. *Journal of Guidance, Control, and Dynamics*, Volume 23, No. 5, September/October 2000, p. 922-929.
Organization RC RTOP 522-25-41

- 104** Boitnott, R. L.; Jackson, K. E.; Fasanella, E. L.; and Kellas, S.: Full-Scale Crash Test of the Sikorsky Advanced Composite Airframe Program Helicopter. Presented at American Helicopter Society 56th Annual Forum and Technology Display, May 2-4, 2000, Virginia Beach, Virginia.
 Organization RC RTOP 522-18-31
- 105** Cole, S. R.; and Garcia, J. L.: Past, Present, and Future Capabilities of the Transonic Dynamics Tunnel From an Aeroelasticity Perspective. Presented at AIAA Dynamics Specialists Conference, April 5-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1767.
 Organization RC RTOP 522-31-21
- 106** Cole, S. R.; Keller, D. F.; and Piatak, D. J.: Contributions of the NASA Langley Transonic Dynamics Tunnel to Launch Vehicle and Spacecraft Development. Presented at AIAA Dynamics Specialists Conference, April 5-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1772.
 Organization RC RTOP 522-32-31
- 107** Daugherty, R. H.: Yawed-Rolling Tire Mechanical Properties Testing of the Navy T-45 Aircraft Tires. NASA/TM-2000-209869, March 2000, 209 p.
 Organization RC RTOP 706-12-11
- 108** Ely, J. J.; Nguyen, T. X.; and Scearce, S. A.: The Influence of Modulated Signal Risetime in Flight Electronics Radiated Immunity Testing With a Mode-Stirred Chamber. NASA/TM-2000-209844, January 2000, 17 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209844.pdf>
 Organization RD RTOP 522-14-21
- 109** Fasanella, E. L.; Boitnott, R. L.; Lyle, K. H.; and Jackson, K. E.: Full-Scale Crash Test and Simulation of a Composite Helicopter. Presented at International Crashworthiness Conference, September 6-8, 2000, London, England.
 Organization RC RTOP 577-50-10
- 110** Fasanella, E. L.; Lyle, K. H.; Pritchard, J. I.; and Stockwell, A. E.: Simulation of X-38 Landing Scenarios With Landing Gear Failures. NASA/TM-2000-210078, ARL-TR-2144, March 2000, 72 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210078.pdf>
 Organization RC RTOP 577-50-10
- 111** Gafka, G. K.; and Daugherty, R. H.: X-38 Landing Gear Skid Test Report. NASA/TM-2000-210293, June 2000, 115 p.
 Organization RC RTOP 522-62-11
- 112** Green, L. L.; Park, M. A.; and Raney, D. L.: Applications of the ADIFOR 3.0 Automatic Adjoint Generation Tool at the NASA Langley Research Center. Presented at AD 2000: Third International Workshop on Automatic Differentiation, June 19-23, 2000, Nice, France.
 Organization RA RTOP 714-05-10

- 113** Heeg, J.: Dynamic Investigation of Static Divergence: Analysis and Testing. NASA/TP-2000-210310, November 2000, 160 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp210310.pdf>
Organization RC RTOP 522-31-31
- 114** Iyer, V.; Everhart, J. L.; Bir, P. J.; and Ulbrich, N.: Implementation of the WICS Wall Interference Correction System at the National Transonic Facility. Presented at 21st AIAA Aerodynamic Measurement Technology and Ground Testing Conference, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2383.
Organization RB RTOP 522-31-31
- 115** Jackson, K. E.: Impact Testing and Simulation of a Crashworthy Composite Fuselage Concept. Presented at International Crashworthiness Conference, September 6-8, 2000, London, England.
Organization RC RTOP 577-50-10
- 116** Jackson, K. E.; and Fasanella, E. L.: Impact Testing and Simulation of a Crashworthy Composite Fuselage. Presented at American Helicopter Society 56th Annual Forum and Technology Display, May 2-4, 2000, Virginia Beach, Virginia.
Organization RC RTOP 577-50-10
- 117** Jackson, K. E.; and Fasanella, E. L.: Development of a Crashworthy Composite Fuselage Concept. Presented at Advances in Aviation Safety Conference and Exposition, April 11-13, 2000, Daytona Beach, Florida. SAE Paper No. 2000-01-2097.
Organization RC RTOP 577-50-10
- 118** Jackson, K. E.; Fasanella, E. L.; and Knight, N. F., Jr.: Demonstration of a Crashworthy Composite Fuselage Concept. Presented at 22nd Army Science Conference, December 12-13, 2000, Baltimore, Maryland.
Organization RC RTOP 577-50-10
- 119** Kvaternik, R. G.; Juang, J-N.; and Bennett, R. L.: Exploratory Studies in Generalized Predictive Control for Active Aeroelastic Control of Tiltrotor Aircraft. NASA/TM-2000-210552, October 2000, 37 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210552.pdf>
Organization RC RTOP 581-10-11
- 120** Kvaternik, R. G.; Juang, J-N.; and Bennett, R. L.: Exploratory Studies in Generalized Predictive Control for Active Control of Aeroelastic Stability and Response of Tiltrotor Aircraft. Presented at AHS International Northeast Region Active Controls Technology Conference, October 4-5, 2000, Bridgeport, Connecticut.
Organization RC RTOP 522-31-21

- 121** Lyle, K. H.; and Ambur, D. R.: Modeling of a Simple Prestressed Panel Impacted by a Moderate Velocity Projectile. Presented at Third International Conference on Nonlinear Problems in Aviation and Aerospace Methods and Software, May 10-12, 2000, Daytona Beach, Florida.
Organization RC RTOP 557-50-10
- 122** Lyle, K. H.; Fasanella, E. L.; and Jackson, K. E.: Simulation of Aircraft Landing Gears With a Nonlinear Dynamic Finite Element Code. Presented at AIAA Modeling and Simulation Technologies Conference, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4090.
Organization RC RTOP 577-50-10
- 123** Marzocca, P.; Librescu, L.; and Silva, W. A.: Aerodynamic Indicial Functions and Their Use in Aeroelastic Formulation of Lifting Surfaces. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia.
Organization RC RTOP 522-31-21
- 124** Moses, R. W.; and Huttell, L. J.: Fin Buffeting Features of an Early F-22 Model. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1695.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1695.pdf>
Organization RC RTOP 522-32-31
- 125** Nixon, M. W.; Piatak, D. J.; Corso, L. M.; and Popelka, D.: Aeroelastic Tailoring for Stability Augmentation and Performance Enhancements of Tiltrotor Aircraft. *Journal of the American Helicopter Society*, Volume 45, No. 4, October 2000, p. 270-279.
Organization RC RTOP 581-20-21
- 126** Norheim, A.; Sinha, N.; and Yager, T. J.: Tribology and Aircraft Performance at Winter-Contaminated Movement Areas. Presented at Workshop on Friction Testing Methods for Research and Applications, November 15, 2000, Orlando, Florida.
Organization RC RTOP 522-62-11
- 127** Olson, E. D.; and Mavris, D. N.: An Integrated Low-Speed Performance and Noise Prediction Methodology for Subsonic Aircraft. Presented at 6th AIAA/CEAS Aeroacoustics Conference, June 12-14, 2000, Lahaina, Hawaii. AIAA Paper No. 2000-2070.
Organization RA RTOP 522-41-11
- 128** Parasuraman, R.; and Schutte, P. C.: Human Error in Automated Systems: Human Operator vs. Human Designer, Local vs. Distributed Error. Presented at IEA 2000/HFES 2000 Congress, July 30–August 4, 2000, San Diego, California.
Organization RD RTOP 522-14-11

- 129** Perry, B., III; Noll, T. E.; and Scott, R. C.: Contributions of the Transonic Dynamics Tunnel to the Testing of Active Control of Aeroelastic Response. Presented at AIAA Dynamics Specialists Conference, April 5-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1769.
Organization RC RTOP 522-31-31
- 130** Piatak, D. J.; and Kunz, D. L.: An Experimental Testbed for Investigations of Tiltrotor Vibration Control. *Journal of the American Helicopter Society*, Volume 45, No. 4, October 2000, p. 280-283.
Organization RC RTOP 522-25-41
- 131** Plassman, G. E.; and Sobieszcanski-Sobieski, J.: Experience With a Genetic Algorithm Implemented on a Multiprocessor Computer. Presented at 8th AIAA/NASA/USAF/ISSMO Multidisciplinary Analysis and Optimization Symposium, September 6-8, 2000, Long Beach, California. AIAA Paper No. 2000-4844.
Organization RA RTOP 509-10-31
- 132** Prazenica, R.; Kurdila, A.; and Silva, W. A.: Multiresolution Methods for Representation of Volterra Series and Dynamical Systems. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper 2000-1754.
Organization RC RTOP 522-31-21
- 133** Quaranta, G.; Masarati, P.; Lanz, M.; Ghiringhelli, G. L.; Mantegazza, P.; and Nixon, M. W.: Dynamic Stability of Soft-in-Plane Tiltrotors by Parallel Multibody Analysis. Presented at 26th European Rotorcraft Forum, September 26-29, 2000, The Hague, The Netherlands.
Organization RC RTOP 581-10-11
- 134** Rivera, J. A., Jr.; and Florance, J. R.: Contributions of Transonic Dynamics Tunnel Testing to Airplane Flutter Clearance. Presented at AIAA Dynamics Specialists Conference, April 5-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1768.
Organization RC RTOP 522-31-21
- 135** Sachse, G. W.: Optical Path Switching Based Differential Absorption Radiometry for Substance Detection. U. S. Patent 6,057,923. Issued May 2, 2000.
Organization RF
- 136** Schuster, D. M.; Edwards, J. W.; and Bennett, R. M.: An Overview of Unsteady Pressure Measurements in the Transonic Dynamics Tunnel. Presented at AIAA Dynamics Specialists Conference, April 5-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1770.
Organization RC RTOP 522-31-21
- 137** Schuster, D. M.; Scott, R. C.; Bartels, R. E.; Edwards, J. W.; and Bennett, R. M.: A Sample of NASA Langley Unsteady Pressure Experiments for Computational Aerodynamics Code Evaluation. Presented at Fluids 2000 Conference and Exhibit, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-1769.
Organization RC RTOP 706-31-21

- 138** Schutte, P. C.: Distance: A Metric for Flight Deck Design and Function Allocation. Presented at IEA 2000/HFES 2000 Congress, July 30–August 4, 2000, San Diego, California.
Organization RD RTOP 728-20-10
- 139** Scott, R. C.: Active Control of Wind-Tunnel Model Aeroelastic Response Using Neural Networks. Presented at SPIE's 7th Annual International Symposium on Smart Structures and Materials, March 5-9, 2000, Newport Beach, California.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-7spie-rcs.pdf>
Organization RC RTOP 522-31-21
- 140** Scott, R. C.; Hoadley, S. T.; Wieseman, C. D.; and Durham, M. H.: The Benchmark Active Controls Technology Model Aerodynamic Data. *Journal of Guidance, Control, and Dynamics*, Volume 23, No. 5, September–October 2000, p. 914-921.
Organization RC RTOP 505-63-50
- 141** Scott, R. C.; and Pado, L. E.: Active Control of Wind-Tunnel Model Aeroelastic Response Using Neural Networks. *Journal of Guidance, Control, and Dynamics*, Volume 23, No. 6, November–December 2000, p. 1100-1108.
Organization RC RTOP 505-63-50
- 142** Silva, W. A.; Keller, D. F.; Florance, J. R.; Cole, S. R.; and Scott, R. C.: Experimental Steady and Unsteady Aerodynamic and Flutter Results for HSCT Semispan Models. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1697.
Organization RC RTOP 522-31-21
- 143** Singleton, J. D.; and Yeager, W. T., Jr.: Important Scaling Parameters for Testing Model-Scale Helicopter Rotors. *Journal of Aircraft*, Volume 37, No. 3, May–June 2000, p. 396-402.
Organization RC RTOP 581-20-21
- 144** Sobieszczanski-Sobieski, J.; Emiley, M. S.; Agte, J. S.; and Sandusky, R. R., Jr.: Advancement of Bi-Level Integrated System Synthesis (BLISS). NASA/TM-2000-210305, December 2000, 14 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-210305.pdf>
Organization RA RTOP 509-10-31
- 145** Sobieszczanski-Sobieski, J.; Emiley, M. S.; Agte, J. S.; and Sandusky, R. R., Jr.: Advancement of Bi-Level Integrated System Synthesis (BLISS). Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0421.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0421.pdf>
Organization RA RTOP 509-10-31

- 146** Walsh, J. L.; Townsend, J. C.; Salas, A. O.; Samareh, J. A.; Mukhopadhyay, V.; and Barthelemy, J-F.: Multidisciplinary High-Fidelity Analysis and Optimization of Aerospace Vehicles, Part I: Formulation. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0418.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0418.pdf>
Organization RA RTOP 509-10-11
- 147** Walsh, J. L.; Weston, R. P.; Samareh, J. A.; Mason, B. H.; Green, L. L.; and Biedron, R. T.: Multidisciplinary High-Fidelity Analysis and Optimization of Aerospace Vehicles, Part 2: Preliminary Results. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0419.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0419.pdf>
Organization RA RTOP 509-10-11
- 148** Weston, R. P.; Walsh, J. L.; Townsend, J. C.; Salas, A. O.; Samareh, J. A.; Mason, B. H.; Green, L. L.; Biedron, R. T.; Mukhopadhyay, V.; and Barthelemy, J-F.: Multidisciplinary High Fidelity Analysis Towards Optimization of Aerospace Vehicles. Presented at 8th AIAA/NASA/USAF/ISSMO Multidisciplinary Analysis and Optimization Symposium, September 6-8, 2000, Long Beach, California.
Organization RA RTOP 509-10-11
- 149** Wilbur, M. L.; Yeager, W. T., Jr.; Wilkie, W. K.; Cesnik, C. E.; and Shin, S-J.: Hover Testing of the NASA/Army/MIT Active Twist Rotor Prototype Blade. Presented at American Helicopter Society 56th Annual Forum and Technology Display, May 2-4, 2000, Virginia Beach, Virginia. In Proceedings.
Organization RC RTOP 581-20-21
- 150** Wilhite, A. W.; and Shaw, R. J.: An Overview of NASA's High-Speed Research Program. Presented at 22nd Congress of the International Council of the Aeronautical Sciences, August 27–September 1, 2000, Harrogate, United Kingdom. In Proceedings, ICAS Paper No. 2000-1.1.2 (I.L.).
Organization AJ RTOP 992-10-01
- 151** Wilkie, W. K.; High, J. W.; Mirick, P. H.; Fox, R. L.; Little, B. D.; Bryant, R. G.; Hellbaum, R. F.; and Jalink, A., Jr.: Low-Cost Piezocomposite Actuator for Structural Control Appliances. Presented at SPIE's 7th Annual International Symposium on Smart Structures and Materials, March 5-9, 2000, Newport Beach, California.
Organization RC RTOP 581-20-21
- 152** Willshire, K. F.; Latorella, K. A.; and Glaab, L. J.: NASA Langley Crew Systems Contributions to Aviation Safety Technology: Results of Studies to Date. Presented at IEA 2000/HFES 2000 Congress, July 30–August 4, 2000, San Diego, California.
Organization RD RTOP 728-30-10

- 153** Yang, Z.; Sun, C. T.; and Wang, J. T.: Fracture Mode Separation for Delamination in Plate-Like Composite Structures. *AIAA Journal*, Volume 38, No. 5, May 2000, p. 868-874.
 Organization RC RTOP 538-13-11
- 154** Yeager, W. T., Jr.; and Kvaternik, R. G.: Contributions of the Langley Transonic Dynamics Tunnel to Rotorcraft Technology and Development. Presented at AIAA Dynamics Specialists Conference, April 5-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1771.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1771.pdf>
 Organization RC RTOP 522-20-21
- 155** Zang, T. A.; Samareh, J. A.; and Bao, H.: Multidisciplinary Design Optimization Methods for Performance and/or Cost Optimization of Vehicles. Presented at Undersea Weapon Simulation Based Design Workshop, June 7-9, 2000, Newport, Rhode Island.
 Organization RA RTOP 705-03-12

Category 07 Aircraft Propulsion and Power

- 156** Chinitz, W.; and Pellett, G. L.: Test Medium Effects on Ignition, Combustion and Flameholding Processes in Scramjet Combustors. Presented at 2000 JANNAF CS/APS/PSHS/MSS Joint Meeting, November 13-17, 2000, Monterey, California.
 Organization RB RTOP 706-51-31
- 157** Huebner, L. D.; Rock, K. E.; Witte, D. W.; Ruf, E. G.; and Andrews, E. H.: Hyper-X Engine Testing in the NASA Langley 8-Foot High Temperature Tunnel. Presented at 36th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, July 17-19, 2000, Huntsville, Alabama. AIAA Paper No. 2000-3605.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-3605.pdf>
 Organization RB RTOP 706-51-31
- 158** Mekkes, G. L.: Fuel Plume Image Mixing Analysis Formulation With Proper Treatment of Non-Constant Velocity Flowfields. (NAS1-96013 Federal Data Corporation.)
 NASA/CR-2000-209868, March 2000, 15 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr209868.pdf>
 Organization OC RTOP 706-51-71
- 159** Rausch, V. L.; McClinton, C. R.; Sitz, J.; and Reukauf, P.: NASA's Hyper-X Program. Presented at 51st International Astronautical Congress, October 2-6, 2000, Rio de Janeiro, Brazil. Paper No. IAF-00-V.4.01.
 Organization OC RTOP 706-51-71
- 160** Rodriguez, C. G.; White, J. A.; and Riggins, D. W.: Three-Dimensional Effects in Modeling of Dual-Mode Scramjets. Presented at 36th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, July 17-19, 2000, Huntsville, Alabama. AIAA Paper No. 2000-3704.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-3704.pdf>
 Organization OC RTOP 706-51-71

Category 08 Aircraft Stability and Control

- 161** Bacon, B. J.; and Ostroff, A. J.: Reconfigurable Flight Control Using Nonlinear Dynamic Inversion With a Special Accelerometer Implementation. Presented at AIAA Guidance, Navigation, and Control Conference, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4565.
Organization RD RTOP 522-61-21
- 162** Bacon, B. J.; Ostroff, A. J.; and Joshi, S. M.: Nonlinear Dynamic Inversion Reconfigurable Controller Utilizing a Fault Tolerant Accelerometer Approach. Presented at 19th Digital Avionics Systems Conference, October 7-13, 2000, Philadelphia, Pennsylvania.
Organization RD RTOP 522-61-21
- 163** Bailey, M. L. (Editor): Pilot Comments for High Speed Research Cycle 3 Simulation Study (LaRC.1). (NAS1-19000 Lockheed Martin Engineering and Sciences Company.) NASA/CR-2000-210306, July 2000, 302 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210306.pdf>
Organization RD RTOP 537-08-23
- 164** Bailey, M. L. (Editor): Pilot Comments From the Boeing High Speed Research Aircraft, Cycle 3, Simulation Study of the Effects of Aeroviscoelasticity (LaRC.3). (NAS1-19000 Lockheed Martin Engineering and Sciences Company.) NASA/CR-2000-210307, July 2000, 254 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210307.pdf>
Organization RD RTOP 537-08-23
- 165** Curry, T. J.: Estimation of Handling Qualities Parameters of the Tu-144 Supersonic Transport Aircraft From Flight Test Data. (NCC1-29 George Washington University, JIAFS.) NASA/CR-2000-210290, August 2000, 120 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210290.pdf>
Organization RD RTOP 537-08-23
- 166** Kelkar, A. G.; and Joshi, S. M.: Passivity-Based Robust Control With Application to Benchmark Active Controls Technology Wing. *Journal of Guidance, Control, and Dynamics*, Volume 23, No. 5, September–October 2000, p. 938-947.
Organization RD RTOP 522-33-11
- 167** Morelli, E. A.: Real-Time Parameter Estimation in the Frequency Domain. *Journal of Guidance, Control, and Dynamics*, Volume 23, No. 5, September–October 2000, p. 812-818.
Organization RD RTOP 522-61-21
- 168** Morelli, E. A.: Low Order Equivalent System Identification for the Tu-144LL Supersonic Transport Aircraft. Presented at AIAA Atmospheric Flight Mechanics Conference, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-3902.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-3902.pdf>
Organization RD RTOP 522-61-21

- 169** Morelli, E. A.: Identification of Low Order Equivalent System Models From Flight Test Data. NASA/TM-2000-210117, August 2000, 69 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA/2000-tm210117.pdf>
Organization RD RTOP 522-61-21
- 170** Park, M. A.; and Green, L. L.: Steady-State Computation of Constant Rotational Rate Dynamic Stability Derivatives. Presented at 18th AIAA Applied Aerodynamics Conference and Exhibit, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4321.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-4321.pdf>
Organization RA RTOP 706-31-31
- 171** Raney, D. L.; Montgomery, R. C.; Green, L. L.; and Park, M. A.: Flight Control Using Distributed Shape-Change Effectors Arrays. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1560.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1560.pdf>
Organization RD RTOP 522-32-41
- 172** Rivers, R. A.; Jackson, E. B.; Fullerton, C. G.; Cox, T. H.; and Princen, N. H.: A Qualitative Piloted Evaluation of the Tupolev Tu-144 Supersonic Transport. NASA/TM-2000-209850, February 2000, 44 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209850.pdf>
Organization RD RTOP 537-08-23
- 173** Tomek, D. M.; and Boyden, R. P.: Subsonic and Transonic Dynamic Stability Characteristics of the X-33. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0266.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0266.pdf>
Organization RB RTOP 242-33-01
- 174** Wang, Z.; Lan, C. E.; and Brandon, J. M.: Unsteady Aerodynamic Effects on the Flight Characteristics of an F-16XL Configuration. Presented at AIAA Atmospheric Flight Mechanics Conference, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-3910.
Organization RD RTOP 522-31-31

Category 09 Research and Support Facilities (Air)

- 175** Buck, G. M.: Rapid Model Fabrication and Testing for Aerospace Vehicles. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0826.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0826.pdf>
Organization RB RTOP 242-80-01

- 176** DeLoach, R.: A Factorial Data Rate and Dwell Time Experiment in the National Transonic Facility. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0828.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0828.pdf>
Organization RB RTOP 992-20-03
- 177** Egoavil, M. A.; and Puster, R. L.: A Severe Buoyancy Problem Analysis and Solution Using CFD. Presented at Sixth International Conference on Advanced Computational Methods in Heat Transfer, June 26-28, 2000, Madrid, Spain. In Proceedings.
Organization RF RTOP 522-51-31
- 178** Hemsch, M. J.; Grubb, J. P.; Krieger, W. B.; and Cler, D. L.: Langley Wind Tunnel Data Quality Assurance—Check Standard Results. Presented at 21st AIAA Aerodynamic Measurement Technology and Ground Testing Conference, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2201.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-2201.pdf>
Organization RB RTOP 992-20-03
- 179** Hodge, J. S.; and Harvin, S. F.: Test Capabilities and Recent Experiences in the NASA Langley 8-Foot High Temperature Tunnel. Presented at 21st AIAA Aerodynamic Measurement Technology and Ground Testing Conference, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2646.
Organization RF RTOP 522-51-31
- 180** Korte, J. J.: Inviscid Design of Hypersonic Wind Tunnel Nozzles for a Real Gas. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0677.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0677.pdf>
Organization RB RTOP 509-10-11
- 181** Lo, C. F.; Zhao, J. L.; and DeLoach, R.: Application of Neural Networks to Wind Tunnel Data Response Surface Methods. Presented at 21st AIAA Aerodynamic Measurement Technology and Ground Testing Conference, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2639.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-2639.pdf>
Organization RB RTOP 992-20-03
- 182** Weinstein, L. M.: Large Field Schlieren Visualization—From Wind Tunnel to Flight. *Journal of Visualization*, Volume 2, No. 3/4, February 2000, p. 321-329.
Organization RB RTOP 992-20-03

Astronautics

Category 12 Astronautics (General)

- 183** Roithmayr, C. M.: International Space Station Attitude Motion Associated With Flywheel Energy Storage. Presented at STAIF 2000: International Space Station (ISS) Utilization Conference, January 30–February 3, 2000, Albuquerque, New Mexico. In Proceedings.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-staif-cmr.pdf>
Organization RA RTOP 953-20-00

Category 13 Astrodynamics

- 184** Cheatwood, F. M.; Winchenbach, G. L.; Hathaway, W.; and Chapman, G.: Dynamic Stability Testing of the Genesis Sample Return Capsule. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-1009.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1009.pdf>
Organization RA RTOP 698-00-00
- 185** Desai, P. N.; Mitcheltree, R. A.; and Cheatwood, F. M.: Sample Returns Missions in the Coming Decade. Presented at 51st International Astronautical Congress, October 2-6, 2000, Rio de Janeiro, Brazil. Paper No. IAF-00-Q.2.04.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-51iac-pnd.pdf>
Organization RA RTOP 859-00-00
- 186** Fraysse, H.; Powell, R. W.; Rousseau, S.; and Striepe, S. A.: CNES-NASA Studies of the Mars Sample Return Orbiter Aerocapture Phase. Presented at 51st International Astronautical Congress, October 2-6, 2000, Rio de Janeiro, Brazil. Paper No. IAF-00-A.6.05.
Organization RA RTOP 859-00-00

Category 15 Launch Vehicles and Space Vehicles

- 187** Amundsen, R. M.; Dec, J. A.; and Lindell, M. C.: Thermal Analysis Methods for an Earth Entry Vehicle. Presented at Eleventh Thermal and Fluids Analysis Workshop (TFAWS 2000), August 21-25, 2000, Cleveland, Ohio.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-11tfaws-rma.pdf>
Organization RF RTOP 736-30-03
- 188** Amundsen, R. M.; Dec, J. A.; Mitcheltree, R. A.; Lindell, M. C.; and Dillman, R. A.: Preliminary Thermal Analysis of a Mars Sample Return Earth Entry Vehicle. Presented at 34th AIAA Thermophysics Conference, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2584.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-2584.pdf>
Organization RF RTOP 736-30-03

- 189** Calhoun, P. C.: An Entry Flight Controls Analysis for a Reusable Launch Vehicle. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-1046.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1046.pdf>
Organization RA RTOP 242-33-03
- 190** Dorsey, J. T.; Myers, D. E.; and Martin, C. J., Jr.: Reusable Launch Vehicle Tank/Intertank Sizing Trade Study. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-1043.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1043.pdf>
Organization RC RTOP 242-33-03
- 191** Lockwood, M. K.: Overview of Conceptual Design of Early VentureStar™ Configurations. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-1042.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1042.pdf>
Organization RA RTOP 242-33-03
- 192** Mitcheltree, R. A.; Braun, R. D.; Simonsen, L. C.; and Hughes, S. J.: Earth Entry Vehicles for the Mars Sample Return Mission. Presented at 51st International Astronautical Congress, October 2-6, 2000, Rio de Janeiro, Brazil. Paper No. IAF-00-Q.3.04.
Organization OC RTOP 736-30-01
- 193** Myers, D. E.; Martin, C. J., Jr.; and Blosser, M. L.: Parametric Weight Comparison of Advanced Metallic, Ceramic Tile, and Ceramic Blanket Thermal Protection Systems. NASA/TM-2000-210289, June 2000, 49 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-210289.pdf>
Organization RA RTOP 242-33-01
- 194** Prosser, W. H.; Pallix, J.; Lei, J-F.; and Baroth, E.: Nano/Microtechnology Sensor Requirements for Integrated Vehicle Health Management of Reusable Launch Vehicles. Presented at Nanospace 2000, January 23-28, 2000, Houston, Texas.
Organization RC RTOP 242-33-01
- 195** Queen, E. M.: Guidance Concept for a Mars Ascent Vehicle First Stage. NASA/TM-2000-210618, November 2000, 11 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210618.pdf>
Organization RA RTOP 865-10-03
- 196** Talay, T. A.: Glideback Booster Application to Small Payload Launcher Development—An Approach to Low-Cost Access to Space. Presented at 2nd NRO/AIAA Workshop on Space Launch Integration, May 2-4, 2000, Chantilly, Virginia.
Organization RA RTOP 242-33-01

- 197** Tartabini, P. V.; Lepsch, R. A., Jr.; Korte, J. J.; and Wurster, K. E.: A Multidisciplinary Performance Analysis of a Lifting-Body Single-Stage-to-Orbit Vehicle. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-1045.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1045.pdf>
Organization RA RTOP 242-33-03
- 198** Unal, R.; Morris, W. D.; White, N. H.; and Lepsch, R. A., Jr.: Modeling Operational Reliability & Maintainability Characteristics of Reusable Launch Vehicles. Presented at International Society of Parametric Analysts 22nd Annual Conference, May 8-10, 2000, Noordwijk, Netherlands.
Organization RA RTOP 282-33-10
- 199** Unal, R.; Morris, W. D.; White, N. H.; Lepsch, R. A., Jr.; and Brown, R. W.: Approximation Model Building for Reliability & Maintainability Characteristics of Reusable Launch Vehicles. Presented at 8th AIAA/NASA/USAF/ISSMO Multidisciplinary Analysis and Optimization Symposium, September 6-8, 2000, Long Beach, California. AIAA Paper No. 2000-4712.
Organization RA RTOP 242-90-61
- 200** Wu, K. C.; and Lepsch, R. A., Jr.: Nontangent, Developed Contour Bulkheads for a Single Stage Launch Vehicle. *Journal of Spacecraft and Rockets*, Volume 37, No. 1, January–February 2000, p. 114-121.
Organization RC RTOP 242-33-01

Category 16 Space Transportation

- 201** MacConochie, I. O.: A Study of a Lifting Body as a Space Station Crew Exigency Return Vehicle (CERV). (NAS1-96013 FDC/NYMA, Inc.) NASA/CR-2000-210548, October 2000, 42 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210548.pdf>
Organization RA RTOP 242-33-01

Category 18 Spacecraft Design, Testing and Performance

- 202** Angster, S.; Johns, B.; Garn, M. A.; Mazanek, D. D.; and Troutman, P. A.: International Space Station Immersive Accommodation Environment. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0680.
Organization RA RTOP 953-20-00
- 203** Antol, J.; and Jorgensen, C. A.: The International Space Station Evolution Data Book: An Overview and Status. Presented at STAIF 2000: International Space Station (ISS) Utilization Conference, January 30–February 3, 2000, Albuquerque, New Mexico.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-staif-ja.pdf>
Organization RA RTOP 953-20-00

- 204** Bao, H.; and Samareh, J. A.: Affordable Design: A Methodology to Implement Process-Based Manufacturing Cost Models Into the Traditional Performance-Focused Multidisciplinary Design Optimization. Presented at 8th AIAA/NASA/USAF/ISSMO Multidisciplinary Analysis and Optimization Symposium, September 6-8, 2000, Long Beach, California. AIAA Paper No. 2000-4839.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-4839.pdf>
Organization RA RTOP 705-03-11
- 205** Bement, L. J.; and Sanok, J. T.: Explosive Joining for the Mars Sample Return Mission. Presented at 36th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, July 17-19, 2000, Huntsville, Alabama. AIAA Paper No. 2000-3406.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-3406.pdf>
Organization RF RTOP 735-30-03
- 206** Dolgin, B.; Sanok, J. T.; Sevilla, D.; and Bement, L. J.: Category V Compliant Container for Mars Sample Return Missions. Presented at SAE International Congress and Exposition, March 6-9, 2000, Detroit, Michigan. Report No. 001CES-131.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-saeice-bd.pdf>
Organization RF RTOP 896-10-00
- 207** Groom, N. J.; and Britcher, C. P. (Editors): Fifth International Symposium on Magnetic Suspension Technology. NASA/CP-2000-210291, July 2000, 691 p.
Organization RD RTOP 522-17-51
- 208** Harvey, G. A.: Thruster Residues on Returned Mir Solar Panel. Presented at SPIE's 45th Annual Meeting—Conference on Optical Systems Contamination and Degradation: Effects, Measurements, and Control, July 30–August 4, 2000, San Diego, California. In Proceedings, SPIE Volume 4096, Paper No. 4096-05.
Organization RF RTOP 547-60-00
- 209** Harvey, G. A.; Humes, D. H.; and Kinard, W. H.: Shuttle and Mir Special Environmental Effects and Hardware Cleanliness. *High Performance Polymers*, Volume 12, No. 1, March 2000, p. 65-82.
Organization RF RTOP 547-60-00
- 210** Harvey, G. A.; Kinard, W. H.; and Visentine, J. T.: Particle Generation by Silicone Potting Compound of Returned Mir Solar Cells. Presented at SPIE's 45th Annual Meeting—Conference on Optical Systems Contamination and Degradation: Effects, Measurements, and Control, July 30–August 4, 2000, San Diego, California. In Proceedings, SPIE, Volume 4096, Paper No. 4096-06.
Organization RF RTOP 547-60-00
- 211** Harvey, G. A.; Kinard, W. H.; and Wilson, L. A.: Outgassing of Flown and Unflown Mir Solar Cells. Presented at 21st Space Simulation Conference, October 23-26, 2000, Annapolis, Maryland. In NASA/CP-2000-209967, p. 249-252.
Organization RF RTOP 547-60-00

- 212** Jorgensen, C. A.: International Space Station Evolution Data Book—Volume I. Baseline Design—Revision A. NASA/SP-2000-6109/VOL1/REV1, October 2000, 222 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/spec/NASA-2000-sp6109vol1rev1.pdf>
Organization RA RTOP 953-20-00
- 213** Jorgensen, C. A.: International Space Station Evolution Data Book—Volume II. Evolution Concepts—Revision A. NASA/SP-2000-6109/VOL2/REV1, October 2000, 142 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/spec/NASA-2000-sp6109vol2rev1.pdf>
Organization RA RTOP 953-20-00
- 214** Lake, M. S.; Heard, W. L., Jr.; Watson, J. J.; and Collins, T. J.: Evaluation of Hardware and Procedures for Astronaut Assembly and Repair of Large Precision Reflectors. NASA/TP-2000-210317, August 2000, 70 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp-NASA-2000-tp210317.pdf>
Organization RC RTOP 242-90-19
- 215** Maghami, P. G.: Model Refinement Using Eigensystem Assignment. *Journal of Guidance, Control, and Dynamics*, Volume 23, No. 4, July–August 2000, p. 683-692.
Organization RD RTOP 632-10-14
- 216** Maghami, P. G.: Robustness of Flexible Systems With Component-Level Uncertainties. Presented at AIAA Guidance, Navigation, and Control Conference, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4149.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-4149.pdf>
Organization RD RTOP 522-61-21
- 217** Maghami, P. G.; and Sparks, D. W., Jr.: Design of Neural Networks for Fast Convergence and Accuracy: Dynamics and Control. *IEEE Transactions on Neural Networks*, Volume 11, No. 1, January 2000, p. 113-123.
Organization RD RTOP 632-10-14
- 218** Mazanek, D. D.; Kumar, R. R.; Qu, M.; and Seywald, H.: Aerothermal Analysis and Design of the Gravity Recovery and Climate Experiment (GRACE) Spacecraft. NASA/TM-2000-210095, April 2000, 48 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210095.pdf>
Organization RA RTOP 259-30-10
- 219** Mazanek, D. D.; Kumar, R. R.; Seywald, H.; and Qu, M.: GRACE Mission Design: Impact of Uncertainties in Disturbance Environment and Satellite Force Models. Presented at 10th AAS/AIAA Space Flight Mechanics Meeting, January 24-26, 2000, Clearwater, Florida. AAS Paper No. 00-163.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-10aas-ddm.pdf>
Organization RA RTOP 259-30-10

- 220** Saulsberry, R.; Ramirez, J.; Julien, H. L.; Hart, M.; Smith, W.; Bement, L. J.; and Meagher, N. E.: WSTF Propulsion and Pyrotechnics Corrective Action Test Program Status—2000. Presented at 36th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, July 17-19, 2000, Huntsville, Alabama. AIAA Paper No. 2000-3514.

Organization RF RTOP 323-27-00

Category 19 Spacecraft Instrumentation

- 221** Singh, U. N.: Solid-State 2-Micron Laser Transmitter for Space Applications. Presented at LEOS 2000 IEEE Lasers and Electro-Optical Society 13th Annual Meeting, November 13-16, 2000, Rio Grande, Puerto Rico.

Organization RF RTOP 258-70-21

Category 20 Spacecraft Propulsion and Power

- 222** Korte, J. J.: Parametric Model of an Aerospike Rocket Engine. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-1044.

<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1044.pdf>

Organization RB RTOP 242-33-03

Chemistry and Materials

Category 23 Chemistry and Materials (General)

- 223** Arrington, G. L.; Gardner, J. E.; Jacobs, J. A.; Fillion, J. E.; and Mallick, P. K. (Compilers): National Educators' Workshop: Update 99—Standard Experiments in Engineering, Materials Science, and Technology. NASA/CP-2000-210325, October 2000, 706 p.

Organization A RTOP 251-10-01

- 224** Jordan, J. D.; Oglesby, D. M.; Watkins, A. N.; Leighty, B. D.; and Davis, P. P.: Temperature Independent Pressure Sensitive Paint Measurements. Presented at 46th International Instrumentation Symposium, April 30–May 4, 2000, Seattle, Washington.

Organization RB RTOP 519-20-21

Category 24 Composite Materials

- 225** Brinson, L. C.; and Gates, T. S.: Viscoelasticity and Aging of Polymer Matrix Composites. In *Comprehensive Composite Materials*, Chapter 2.10, Volume 2, Polymer Matrix Composites, R. Talreja, ed., Elsevier Science, July 2000.

Organization RC RTOP 522-62-31

- 226** Chawan, A. D.; and O'Brien, T. K.: Influence of Specimen Preparation and Specimen Size on Transverse Tension Fatigue Characterization for Glass-Epoxy Composites. Presented at Second International Conference on Fatigue of Composites, June 4-7, 2000, Williamsburg, Virginia.
Organization RC RTOP 712-10-21
- 227** Davila, C. G.; Ambur, D. R.; and McGowan, D. M.: Analytical Prediction of Damage Growth in Notched Composite Panels Loaded in Axial Compression. *Journal of Aircraft*, Volume 37, No. 5, September–October 2000, p. 898-905.
Organization RC RTOP 538-13-11
- 228** Farley, G. L.: Method for Fabricating Composite Structures Using Pultrusion Processing. U. S. Patent 6,033,511. Issued March 7, 2000.
Organization RC
- 229** Farley, G. L.: Method for Fabricating Composite Structures Using Pultrusion Processing. U. S. Patent 6,033,510. Issued March 7, 2000.
Organization RC
- 230** Fox, R. L.; Hellbaum, R. F.; Bryant, R. G.; and Copeland, B. M., Jr.: Advanced Layered Composite Polylamine Electroactive Actuator and Sensor. U. S. Patent 6,060,811. Issued May 9, 2000.
Organization RF
- 231** Gates, T. S.: Durability Characterization of Advanced Polymeric Composites. Presented at 4th Conference on Aerospace Materials, Processes, and Environmental Technology, September 18-20, 2000, Huntsville, Alabama.
Organization RC RTOP 706-12-31
- 232** Gates, T. S.; and Whitley, K. S.: Effects of Hygrothermal Exposure on the Aging and Viscoelastic Behavior of Graphite/Thermoplastic Composites. Presented at SEM IX International Congress on Experimental Mechanics, June 5-8, 2000, Orlando, Florida.
Organization RC RTOP 522-32-11
- 233** Gates, T. S.; and Whitley, K. S.: Long-Term Durability of Polymer Matrix Composites Under Simulated Supersonic Flight Profile Testing. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1684.
Organization RC RTOP 522-32-11
- 234** Glaessgen, E. H.; and Raju, I. S.: Debonding of Stitched Composite Sandwich Structures. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1614.
Organization RC RTOP 538-10-12

- 235** Glaessgen, E. H.; Raju, I. S.; and Poe, C. C., Jr.: Plate Element-Based Models for Mixed-Mode Debonding of Stitched Stiffened Panels. *ASTM STP 1360: Fatigue and Fracture Mechanics*, Volume 30, 2000, p. 456-472.
Organization RC RTOP 538-13-11
- 236** Glaessgen, E. H.; Raju, I. S.; Ronaghi, M.; and Etherton, J. R.: Analyzing the Effectiveness of Composite Materials for an Automatically Deployable ROPS Application. Presented at National Occupational Injury Research Symposium, October 17-19, 2000, Pittsburgh, Pennsylvania.
Organization RC RTOP 274-00-00
- 237** Glaessgen, E. H.; Sleight, D. W.; Wang, J. T.; Raju, I. S.; and Harris, C. E.: Analysis of the Debonding of Composite Sandwich Structures With Internal Pressure. Presented at International Conference on Computational Engineering and Sciences, August 21-25, 2000, Los Angeles, California.
Organization RC RTOP 242-23-02
- 238** Harris, C. E.: Assessment of the State-of-the-Art in the Design and Manufacturing of Large Composite Structures. Presented at 4th Conference on Aerospace Materials, Processes, and Environmental Technology, September 18-20, 2000, Huntsville, Alabama. In Proceedings.
Organization RC RTOP 706-13-41
- 239** Krueger, R.; Cvitkovich, M. K.; O'Brien, T. K.; and Minguet, P. J.: Testing and Analysis of Composite Skin/Stringer Debonding Under Multi-Axial Loading. *Journal of Composite Materials*, Volume 34, No. 15, August 2000, p. 1263-1300.
Organization RC RTOP 538-02-10
- 240** Krueger, R.; Minguet, P. J.; and O'Brien, T. K.: A Method for Calculating Strain Energy Release Rates in Preliminary Design of Composite Skin/Stringer Debonding Under Multi-Axial Loading. *ASTM STP 1383-Composite Structures: Theory and Practice*, 2000, p. 105-128.
Organization RC RTOP 581-10-21
- 241** Krueger, R.; and O'Brien, T. K.: A Shell/3D Modeling Technique for the Analysis of Delaminated Composite Laminates. NASA/TM-2000-210287, ARL-TR-2207, June 2000, 72 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210287.pdf>
Organization RC RTOP 581-10-21
- 242** Krueger, R.; Paris, I. L.; O'Brien, T. K.; and Minguet, P. J.: Fatigue Life Methodology for Bonded Composite Skin/Stringer Configurations. Presented at American Society for Composites 15th Annual Technical Conference, September 24-27, 2000, College Station, Texas. In Proceedings, p. 729-736.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-asc15atc-rk.pdf>
Organization RC RTOP 712-10-21

- 243** Murri, G. B.: Influence of Ply Waviness on Fatigue Life of Tapered Composite Flexbeam Laminates. *ASTM STP 1383—Composite Structures: Theory and Practice*, 2000, p. 188-209.
Organization RC RTOP 581-10-21
- 244** Northam, G. B.; Ransone, P. O.; and Rivers, H. K.: Carbon Fiber Reinforced Carbon Composite Rotary Valve for an Internal Combustion Engine. U. S. Patent 6,098,579. Issued August 8, 2000.
Organization RC
- 245** Northam, G. B.; and Rivers, H. K.: IC Engine Applications of Carbon-Carbon. *Advanced Engineering Materials*, Volume 2, No. 9, September 2000, p. 4.
Organization RC RTOP 713-23-02
- 246** Reeder, J. R.: Refinements to the Mixed-Mode Bending Test for Delamination Toughness. Presented at American Society for Composites 15th Annual Technical Conference, September 24-27, 2000, College Station, Texas.
Organization RC RTOP 522-63-41
- 247** Reeder, J. R.; and Glaessgen, E. H.: Debonding of Stitched Composite Joints Under Fatigue Loading. Presented at SEM IX International Congress on Experimental Mechanics, June 5-8, 2000, Orlando, Florida.
Organization RC RTOP 522-63-41
- 248** Rivers, H. K.; Ransone, P. O.; Northam, G. B.; and Schwind, F. A.: Pistons and Cylinders Made of Carbon-Carbon Composite Materials. U. S. Patent 6,148,785. Issued November 21, 2000.
Organization RC
- 249** Rivers, H. K.; Ransone, P. O.; Northam, G. B.; and Schwind, F. A.: Pistons and Cylinders Made of Carbon-Carbon Composite Materials. U. S. Patent 6,044,819. Issued April 4, 2000.
Organization RC
- 250** Seale, M. D.; and Madaras, E. I.: Nondestructive Evaluation of the Effects of Thermal-Mechanical Aging on IM7/K3B Stiffness. *Journal of Thermoplastic Composite Materials*, Volume 13, No. 1, 2000, p. 75-90.
Organization RC RTOP 537-08-33
- 251** Seale, M. D.; and Madaras, E. I.: Lamb Wave Evaluation of the Effects of Thermal-Mechanical Aging on Composite Stiffness. *Journal of Composite Materials*, Volume 34, No. 1, 2000, p. 27-38.
Organization RC RTOP 537-06-33

- 252** Seale, M. D.; and Madaras, E. I.: Use of Guided Acoustic Waves to Assess the Effects of Thermal-Mechanical Cycling on Composite Stiffness. NASA/TM-2000-210628, December 2000, 20 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210628.pdf>
Organization RC RTOP 537-06-33
- 253** St. Clair, T. L.: Fire Resistant, Moisture Barrier Membrane. U. S. Patent 6,017,637. Issued January 25, 2000.
Organization RC
- 254** Sutton, M. A.; Deng, X.; Ma, F.; Newman, J. C., Jr.; and James, M. A.: Development of Application of a Crack Tip Opening Displacement-Based Mixed Mode Fracture Criterion. *International Journal of Solids and Structures*, Volume 37, No. 26, June 2000, p. 3591-3618.
Organization RC RTOP 522-18-11
- 255** Wincheski, R. A.; and Namkung, M.: Development and Testing of Iron Polyimide Nanocomposites for Magnetic Field Sensing Applications. Presented at Nanospace 2000, January 23-28, 2000, Houston, Texas.
Organization RC RTOP 522-18-11

Category 25 Inorganic and Physical Chemistry

- 256** Wood, G. M.; Upchurch, B. T.; Schryer, D. R.; Davis, P. P.; Kielin, E. J.; Brown, K. G.; Schryer, J. L.; and D'Ambrosia, C. M.: Catalyst for Oxidation of Volatile Organic Compounds. U. S. Patent 6,132,694. Issued October 17, 2000.
Organization RB

Category 26 Metallic Materials

- 257** Bird, R. K.; Dicus, D. L.; Fridlyander, J. N.; and Sandler, V. S.: Al-Li Alloy 1441 for Fuselage Applications. Presented at Seventh International Conference on Aluminum Alloys, April 9-14, 2000, Charlottesville, Virginia. In Proceedings, Part 2, p. 907-912.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-7icaa-rkb.pdf>
Organization RC RTOP 522-11-48
- 258** Brewer, W. D.; Wallace, T. A.; Bird, R. K.; and Sankaran, S. N.: Alloys and Coating Development for Metallic TPS for Reusable Launch Vehicles. Presented at 2000 National Space and Missile Materials Symposium, February 28–March 2, 2000, San Diego, California.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-nsmms-wdb.pdf>
Organization RC RTOP 242-23-20
- 259** Cantrell, J. H., Jr.; and Yost, W. T.: Determination of Precipitate Nucleation and Growth Rates From Ultrasonic Harmonic Generation. *Applied Physics Letters*, Volume 77, No. 13, September 25, 2000, p. 1952-1954.
Organization RC RTOP 706-12-21

- 260** Cantrell, J. H., Jr.; and Yost, W. T.: Nonlinear Ultrasonic Characterization of Fatigue Microstructures. Presented at International Conference on Fatigue Damage of Structural Materials III, September 18-22, 2000, Hyannis, Massachusetts.
Organization RC RTOP 706-12-21
- 261** Hafley, R. A.; and Hales, S. J.: Mechanical Anisotropy in Aluminum-Lithium Alloy Near-Net-Shape Extrusions. Presented at 11th Annual Aeromat Conference and Exhibition, June 26-29, 2000, Seattle, Washington.
Organization RC RTOP 522-13-41
- 262** Hafley, R. A.; Wagner, J. A.; and Domack, M. S.: Fatigue Crack Growth Rate Test Results for Al-Li 2195 Parent Metal, Variable Polarity Plasma Arc Welds and Friction Stir Welds. NASA/TM-2000-210098, May 2000, 43 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210098.pdf>
Organization RC RTOP 242-20-05
- 263** Hales, S. J.; and Hafley, R. A.: Texture/Yield Strength Correlations in Al-Li Near-Net-Shape Extrusions. Presented at Seventh International Conference on Aluminum Alloys, April 9-14, 2000, Charlottesville, Virginia. In Materials Science Forum, Volumes 331-337, p. 1347-1352.
Organization RC RTOP 522-13-41
- 264** Harris, C. E.; Piascik, R. S.; and Newman, J. C., Jr.: A Practical Engineering Approach to Predicting Fatigue Crack Growth in Riveted Lap Joints. NASA/TM-2000-210106, May 2000, 26 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210106.pdf>
Organization RC RTOP 242-20-05
- 265** Hoffman, E. K.; Brewer, W. D.; and Dicus, D. L.: Titanium Alloy and Fabrication Process Development for the HSCT. Presented at 11th Annual Aeromat Conference and Exhibition, June 26-29, 2000, Seattle, Washington.
Organization RC RTOP 537-06-31
- 266** Jackson, W. C.: Compression Strength of Thick Glass-Epoxy Laminates Containing Circular Delaminations. Presented at American Society for Composites 15th Annual Technical Conference, September 24-27, 2000, College Station, Texas.
Organization RC RTOP 505-63-87
- 267** McDaniel, P. R.; and St. Clair, T. L.: Molecular Level Coating of Metal Oxide Particles. U. S. Patent 6,114,156. Issued September 5, 2000.
Organization RC

- 268** Metschan, S. L.: Validated Feasibility Study of Integrally Stiffened Metallic Fuselage Panels for Reducing Manufacturing Costs—Cost Assessment of Manufacturing/Design Concepts. (NAS1-20014 and NAS1-20267 Boeing Commercial Airplane Group.) NASA/CR-2000-209343, February 2000, 26 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr209343.pdf>
Organization RC RTOP 522-12-51
- 269** Munroe, J.; Wilkins, K.; and Gruber, M.: Integral Airframe Structures (IAS)—Validated Feasibility Study of Integrally Stiffened Metallic Fuselage Panels for Reducing Manufacturing Costs. (NAS1-20014 and NAS1-20267 Boeing Commercial Airplane Group.) NASA/CR-2000-209337, May 2000, 347 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr209337.pdf>
Organization RC RTOP 522-12-51
- 270** Namkung, M.: Electromagnetic Nondestructive Evaluation—An Overview. Presented at Atomic-Scale Surface Research Center, Department of Physics, Yonsei University, September 29, 2000, Seoul, Korea.
Organization RC RTOP 706-12-21
- 271** Newman, J. C., Jr.: Advances in Fatigue and Fracture Mechanics Analyses for Metallic Aircraft Structures. NASA/TM-2000-210084, April 2000, 45 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210084.pdf>
Organization RC RTOP 706-11-11
- 272** Newman, J. C., Jr.; and Piascik, R. S.: Fatigue Analysis of Riveted-Lap-Joint Panels Under Ambient and Salt Water Conditions. Presented at 4th Joint DOD/FAA/NASA Conference on Aging Aircraft, May 15-18, 2000, St. Louis, Missouri.
Organization RC RTOP 706-11-11
- 273** Pettit, R. G.; Wang, J. J.; and Toh, C.: Validated Feasibility Study of Integrally Stiffened Metallic Fuselage Panels for Reducing Manufacturing Costs. (NAS1-20014 The Boeing Company.) NASA/CR-2000-209342, May 2000, 132 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr209342.pdf>
Organization RC RTOP 522-12-51
- 274** Seale, M. D.; and Madaras, E. I.: Transducer Effects in Ultrasonic Measurements of Material Stiffness. *Experimental Techniques*, Volume 24, No. 6, November–December 2000, p. 35-38.
Organization RC RTOP 537-06-47
- 275** Seshadri, B. R.; and Newman, J. C., Jr.: Elastic-Plastic Finite-Element Contact Stress Analysis of Interface-Fit Tapered Fasteners. Presented at 4th Joint DOD/FAA/NASA Conference on Aging Aircraft, May 15-18, 2000, St. Louis, Missouri.
Organization RC RTOP 706-11-11

- 276** Seshadri, B. R.; and Newman, J. C., Jr.: Residual Strength Analyses of Riveted Lap-Splice Joints. NASA/TM-2000-209856, April 2000, 29 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209856.pdf>
Organization RC RTOP 538-02-10
- 277** Taminger, K. M.; Wagner, J. A.; and Lisagor, W. B.: Creep Strain and Strain Rate Response of 2219 Al Alloy at High Stress Levels. Presented at Seventh International Conference on Aluminum Alloys, April 9-14, 2000, Charlottesville, Virginia. In Proceedings, Part 1, p. 1501-1506.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-7icaa-kmt.pdf>
Organization RC RTOP 706-13-41
- 278** Troeger, L. P.; Domack, M. S.; and Wagner, J. A.: Microstructural and Mechanical Property Characterization of Shear Formed Aluminum Alloys for Airframe and Space Applications. Presented at Seventh International Conference on Aluminum Alloys, April 9-14, 2000, Charlottesville, Virginia. In Proceedings, Part 1, p. 489-494.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-7icaa-lpt.pdf>
Organization RC RTOP 242-82-10
- 279** Troeger, L. P.; Domack, M. S.; and Wagner, J. A.: Microstructural and Mechanical Property Characterization of Shear Formed Aerospace Aluminum Alloys. NASA/TM-2000-210540, October 2000, 45 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210540.pdf>
Organization RC RTOP 522-63-41
- 280** Wincheski, R. A.; Namkung, M.; and Simpson, J. W.: Magnetoresistive Sensor Based Rotating Probe System for Detection of Deep Fatigue Cracks Under Airframe Fasteners. Presented at 4th Joint DOD/FAA/NASA Conference on Aging Aircraft, May 15-18, 2000, St. Louis, Missouri.
Organization RC RTOP 706-12-21
- 281** Yost, W. T.; Cantrell, J. H., Jr.; and Na, J. K.: Nonlinear Ultrasonic Pulsed Measurements and Applications to Metal Processing and Fatigue. Presented at 27th Annual Review of Progress in Quantitative Nondestructive Evaluation, July 16-21, 2000, Ames, Iowa.
Organization RC RTOP 706-61-11

Category 27 Nonmetallic Materials

- 282** Bryant, R. G.: Tough Soluble Aromatic Thermoplastic Copolyimides. U. S. Patent 6,048,959. Issued April 11, 2000.
Organization RC
- 283** Bryant, R. G.; Namkung, M.; Wincheski, R. A.; Fulton, J. P.; and Fox, R. L.: Molded Magnetic Article. U. S. Patent 6,054,210. Issued April 25, 2000.
Organization RF

- 284** Chang, A. C.; and Jensen, B. J.: Adhesive Properties of Cured Phenylethyanyl Containing Imides. *Journal of Adhesion*, Volume 72, No. 2, 2000, p. 209-218.
Organization RC RTOP 242-23-02
- 285** Choi, S. H.: Hypocycloidal-Pinch (HCP) Plasma for Crystal Growth. Presented at Samsung Advanced Institute of Technology Meeting (SAIT), December 12, 2000, Suwon, Korea.
Organization RC RTOP 258-70-21
- 286** Cobb, T. Q.; Johnson, W. S.; Lowther, S. E.; and St. Clair, T. L.: Optimization of Surface Treatment and Adhesive Selection for Bond Durability in Ti-15-3 Laminates. *Journal of Adhesion*, Volume 71, No. 2/3, 1999, p. 115-141.
Organization RC RTOP 537-06-32
- 287** Connell, J. W.: Phenylethyanyl Imide Oligomers for Resin Transfer Molding and Resin Infusion of Composites. Presented at Polycondensation 2000, September 18-21, 2000, Tokyo, Japan.
Organization RC RTOP 242-82-00
- 288** Connell, J. W.: The Effect of Low Earth Orbit Atomic Oxygen Exposure on Phenylphosphine Oxide-Containing Polymers. *High Performance Polymers*, Volume 12, No. 1, March 2000, p. 43-52.
Organization RC RTOP 632-04-00
- 289** Connell, J. W.; Smith, J. G., Jr.; and Hergenrother, P. M.: High Temperature Transfer Molding Resins-II. Presented at Fourth International Chemical Congress of Pacific Basin Societies, December 14-19, 2000, Honolulu, Hawaii.
Organization RC RTOP 242-82-00
- 290** Connell, J. W.; Smith, J. G., Jr.; and Hergenrother, P. M.: Oligomers and Polymers Containing Phenylethyanyl Groups. *Journal of Macromolecular Science—Reviews in Macromolecular Chemistry*, Volume 40, No. 2/3, July 2000, p. 207-230.
Organization RC RTOP 537-06-46
- 291** Connell, J. W.; Smith, J. G., Jr.; and Hergenrother, P. M.: High Temperature Transfer Molding Resins. U. S. Patent 6,124,035. Issued September 26, 2000.
Organization RC
- 292** Connell, J. W.; Smith, J. G., Jr.; Hergenrother, P. M.; and Rommel, M. L.: Neat Resin, Adhesive and Composite Properties of Reactive Additive/PETI-5 Blends. *High Performance Polymers*, Volume 12, No. 2, June 2000, p. 323-333.
Organization RC RTOP 242-82-00

- 293** Connell, J. W.; and Watson, K. A.: Polyimides Containing Fluorine and Phosphorus for Potential Space Applications. Presented at Fluoropolymer 2000, October 15-18, 2000, Savannah, Georgia. In Proceedings, Volume 1, Paper No. 25.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-fp-jwc.pdf>
Organization RC RTOP 632-64-00
- 294** Criss, J. M.; Arendt, C. P.; Connell, J. W.; Smith, J. G., Jr.; and Hergenrother, P. M.: Resin Transfer Molding and Resin Infusion Fabrication of High Temperature Composites. *SAMPE Journal*, Volume 36, No. 3, May–June 2000, p. 32-41.
Organization RC RTOP 242-82-10
- 295** Evans, S. A.; Bryant, R. G.; and Fox, R. L.: Thermal and Mechanical Characterization of NASA High Displacement Actuators. Presented at SPIE's 7th Annual International Symposium on Smart Structures and Materials, March 5-9, 2000, Newport Beach, California.
Organization RC RTOP 632-10-14
- 296** Everett, R. A., Jr.: Solution of the TTCP Small Crack Problem. Presented at Annual Meeting of Structural Dynamics of Aeronautical Vehicles, March 18-28, 2000, Melbourne, Australia.
Organization RC RTOP 282-10-01
- 297** Everett, R. A., Jr.; Matthews, W. T.; Prabhakaran, R.; Newman, J. C., Jr.; and Dubberly, M. J.: The Effects of Shot and Laser Peening on Fatigue Life and Crack Growth in 2024 Aluminum Alloy and 4340 Steel. Presented at 2000 USAF Aircraft Structural Integrity Program Conference, December 5-7, 2000, San Antonio, Texas.
Organization RC RTOP 282-10-01
- 298** Goodman, D. L.; Byrne, C. A.; Yen, A.; Moulton, R.; Dixon, D.; and Costen, R. C.: Automated Tape Placement With In-Situ Electron Beam Cure. *SAMPE Journal*, Volume 36, No. 2, March–April 2000, p. 11-17.
Organization RC RTOP 713-23-02
- 299** Hergenrother, P. M.: Development of Composites, Adhesives and Sealants for High Speed Commercial Airplanes. *SAMPE Journal*, Volume 36, No. 1, 2000, p. 30-41.
Organization RC RTOP 537-06-46
- 300** Hergenrother, P. M.: Phenylethynyl Containing Imides. Presented at 9th Japan Conference on Polyimides and Aromatic Polymers, November 30–December 1, 2000, Tokyo, Japan.
Organization RC RTOP 242-82-00
- 301** Hergenrother, P. M.; Connell, J. W.; and Smith, J. G., Jr.: Phenylethynyl Containing Imide Oligomers. *Polymer Journal*, Volume 41, No. 13, June 2000, p. 5073-5081.
Organization RC RTOP 537-06-32

- 302** Hinkley, J. A.; Klinedinst, D.; and Feuz, L.: Stretch-Oriented Polyimide Films. NASA/TM-2000-210094, April 2000, 18 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210094.pdf>
Organization RC RTOP 274-00-99
- 303** Hinkley, J. A.; and Proctor, D. P.: Oxidative Aging of Cured Polymers From Phenylethynyl Terminated Imide Oligomers. *Journal of Advanced Materials*, Volume 32, No. 4, October 2000, p. 35-41.
Organization RC RTOP 537-06-32
- 304** Jaunky, N.; and Ambur, D. R.: Optimal Design of Grid-Stiffened Panels and Shells With Variable Curvature. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1662.
Organization RC RTOP 522-13-31
- 305** Jensen, B. J.: Method To Prepare Processable Polyimides With Non-Reactive Endgroups Using 1,3-Bis(3-Aminophenoxy) Benzene. U. S. Patent 6,166,174. Issued December 26, 2000.
Organization RC
- 306** Jensen, B. J.: Methods to Prepare Processable Polyimides With Reactive Endgroups Using 1,3 Bis (3-Aminophenoxy) Benzene. U. S. Patent 6,133,401. Issued October 17, 2000.
Organization RC
- 307** Jensen, B. J.; Cooper, J. B.; and Wise, K. L.: Modulated Fourier Transform-Ramen Fiber Optic Spectroscopy. U. S. Patent 6,061,134. Issued May 9, 2000.
Organization RC
- 308** Jensen, B. J.; St. Clair, T. L.; Weiser, E. S.; Belvin, H. L.; Cano, R. J.; Chang, A. C.; and Dingemans, T. J.: High Temperature Integrated Structures for Aerospace Vehicles. Presented at 2000 National Space and Missile Materials Symposium, February 28–March 2, 2000, San Diego, California.
Organization RC RTOP 713-23-02
- 309** Kim, M. Y.; Thibeault, S. A.; Wilson, J. W.; Simonsen, L. C.; Heilbronn, L. H.; Chang, K.; Kiefer, R. L.; Weakley, J. A.; and Maahs, H. G.: Development and Testing of In-Situ Materials for Human Exploration of Mars. *High Performance Polymers*, Volume 12, No. 1, March 2000, p. 13-26.
Organization RC RTOP 632-10-14
- 310** Klein, D. J.; and Bryant, R. G.: Synthesis and Characterization of Polyimides Prepared From Sulfone, Carbonyl, and Phosphine Oxide-Containing Diamines. Presented at 2000 Fall National ACS Meeting, August 20-25, 2000, Washington, DC.
Organization RC RTOP 706-32-11

- 311** Mo, S. Y.; Choi, S. H.; Song, K. D.; and Golembiewski, W. T.: Networked Rectenna Array for Smart Material Actuators. Presented at SPIE's 7th Annual International Symposium on Smart Structures and Materials, March 5-9, 2000, Newport Beach, California.
Organization RC RTOP 714-05-10
- 312** Newman, J. C., Jr.; Piascik, R. S.; and Harris, C. E.: Advances in Structural Integrity Methodologies From the NASA Aging Aircraft Program. Presented at 37th Annual Technical Meeting of Society of Engineering Science, October 23-25, 2000, Columbia, South Carolina.
Organization RC RTOP 522-61-11
- 313** Nicholson, L. M.; and Gates, T. S.: The Influence of Crosslink Density on the Viscoelastic Response of an Advanced Polyimide. Presented at American Society for Composites 15th Annual Technical Conference, September 24-27, 2000, College Station, Texas. In Proceedings, Paper No. T1-2.
Organization RC RTOP 522-63-31
- 314** Nicholson, L. M.; Whitley, K. S.; and Gates, T. S.: The Combined Influence of Molecular Weight and Temperature on the Aging and Viscoelastic Response of a Glassy Thermoplastic Polyimide. NASA/TM-2000-210312, September 2000, 33 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210312.pdf>
Organization RC RTOP 706-13-31
- 315** Nicholson, L. M.; Whitley, K. S.; and Gates, T. S.: Molecular Weight Effects on the Viscoelastic Response of a Polyimide. Presented at 45th International SAMPE Symposium and Exhibit, May 21-25, 2000, Long Beach, California.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-45sampe-lmn.pdf>
Organization RC RTOP 706-13-31
- 316** Nicholson, L. M.; Whitley, K. S.; and Gates, T. S.: Influence of Molecular Variables on the Durability of a Thermoplastic Glassy Polyimide. Presented at Second International Conference on Fatigue of Composites, June 4-7, 2000, Williamsburg, Virginia.
Organization RC RTOP 706-13-31
- 317** Nicholson, L. M.; Whitley, K. S.; Gates, T. S.; and Hinkley, J. A.: Influence of Molecular Weight on the Mechanical Performance of a Thermoplastic Glassy Polyimide. *Journal of Materials Science*, Volume 35, No. 24, December 15, 2000, p. 6111-6121.
Organization RC RTOP 522-32-11
- 318** Ooi, I. H.; Hergenrother, P. M.; and Harris, F. W.: Synthesis and Properties of Phenylethynyl-Terminated, Star-Branched, Phenylquinoxaline Oligomers. *Polymer Journal*, Volume 41, No. 13, June 2000, p. 5095-5107.
Organization RC RTOP 537-06-46

- 319** Park, C.; Lowther, S. E.; Smith, J. G., Jr.; Connell, J. W.; Hergenrother, P. M.; and St. Clair, T. L.: Polyimide-Silica Hybrids Using Novel Phenylethynyl Imide Silanes as Coupling Agents for Surface-Treated Titanium Alloy. *International Journal of Adhesion and Adhesives*, Volume 20, No. 6, November 2000, p. 457-465.
Organization RC RTOP 537-06-46
- 320** Powers, C.; Townsend, J.; Wooldridge, E.; Connell, J. W.; Dever, J.; and Edwards, D.: Next Generation Space Telescope (NGST) Thin Film Materials Test Program. Presented at SPIE Astronomical Telescopes and Instrumentation, March 27-31, 2000, Munich, Germany. SPIE Paper No. 4013-109.
Organization RC RTOP 632-64-00
- 321** Russell, D. A.; Fogdall, L. B.; and Bohnhoff-Hlavacek, G. L.: Simulated Space Environmental Testing on Thin Films. (L-9162 The Boeing Company.) NASA/CR-2000-210101, April 2000, 94 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210101.pdf>
Organization RC RTOP 632-10-14
- 322** Seshadri, B. R.; and Newman, J. C., Jr.: Numerical and Experimental Investigation of Interference-Fit Tapered Fasteners. Presented at 2000 USAF Aircraft Structural Integrity Program Conference, December 5-7, 2000, San Antonio, Texas.
Organization RC RTOP 522-61-11
- 323** Smith, J. G., Jr.; and Connell, J. W.: Chemistry and Properties of Imide Oligomers From Phenylethynyl-Containing Diamines. *High Performance Polymers*, Volume 12, No. 1, March 2000, p. 213-223.
Organization RC RTOP 537-06-32
- 324** Smith, J. G., Jr.; Connell, J. W.; and Hergenrother, P. M.: The Effect of Phenylethynyl Terminated Imide Oligomer Molecular Weight on the Properties of Composites. *Journal of Composite Materials*, Volume 34, No. 7, July 2000, p. 614-628.
Organization RC RTOP 537-06-32
- 325** Smith, J. G., Jr.; Connell, J. W.; Hergenrother, P. M.; and Criss, J. M.: High Temperature Transfer Molding Resins. Presented at 45th International SAMPE Symposium and Exhibit, May 21-25, 2000, Long Beach, California. In Proceedings, Volume 45, p.1584-1597.
Organization RC RTOP 537-06-32
- 326** Southward, R. E.; Thompson, D. W.; St. Clair, A. K.; and Stoakley, D. M.: Reflective Silvered Polyimide Films Via In-Situ Thermal Reduction Silver (1) Complexes. U. S. Patent 6,019,926. Issued February 1, 2000.
Organization RC

- 327** Watson, K. A.; and Connell, J. W.: Space Environmentally Stable Polyimides and Copolyimides. Presented at 45th International SAMPE Symposium and Exhibit, May 21-25, 2000, Long Beach, California. In Proceedings, Volume 45, p. 1907-1920.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-45sampe-kaw.pdf>
Organization RC RTOP 632-10-14
- 328** Weiser, E. S.; Johnson, T. F.; Jensen, B. J.; and St. Clair, T. L.: High Temperature Integrated Structures for Aerospace Vehicles. Presented at 2000 National Space and Missile Materials Symposium, February 28–March 2, 2000, San Diego, California.
Organization RC RTOP 242-33-03
- 329** Weiser, E. S.; Johnson, T. F.; St. Clair, T. L.; Echigo, Y.; Kaneshiro, H.; and Grimsley, B. W.: Polyimide Foams for Aerospace Vehicles. *High Performance Polymers*, Volume 12, No. 1, March 2000, p. 1-12.
Organization RC RTOP 713-23-02
- 330** Weiser, E. S.; St. Clair, T. L.; Echigo, Y.; and Kaneshiro, H.: Hollow Polyimide Microspheres. U. S. Patent 6,084,000. Issued July 4, 2000.
Organization RC
- 331** Weiser, E. S.; St. Clair, T. L.; Echigo, Y.; and Kaneshiro, H.: Aromatic Polyimide Foam. U. S. Patent 6,133,330. Issued October 17, 2000.
Organization RC
- 332** Whitley, K. S.; Gates, T. S.; Hinkley, J. A.; and Nicholson, L. M.: Mechanical Properties of LaRCTM SI Polymer for a Range of Molecular Weights. NASA/TM-2000-210304, August 2000, 35 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210304.pdf>
Organization RC RTOP 706-12-31
- 333** Wood, K. H.; Brown, T. L.; Rogowski, R. S.; and Jensen, B. J.: Fiber Optic Sensors for Health Monitoring of Morphing Airframes, Part I: Bragg Grating Strain and Temperature Sensor. *Smart Materials and Structures*, Volume 9, No. 2, April 2000, p. 163-169.
Organization RC RTOP 274-00-98
- 334** Wood, K. H.; Brown, T. L.; Rogowski, R. S.; and Jensen, B. J.: Fiber Optic Sensors for Health Monitoring of Morphing Airframes, Part II: Chemical Sensing Using Optical Fibers With Bragg Gratings. *Smart Materials and Structures*, Volume 9, No. 2, April 2000, p. 170-174.
Organization RC RTOP 274-00-98
- 335** Wu, X. R.; and Newman, J. C., Jr.: Small-Crack Growth and Fatigue Life Predictions for High-Strength Aluminum Alloys. Presented at International Conference on Electronic Materials, May 30–June 2, 2000, Strasbourg, France.
Organization RC RTOP 522-61-11

Category 29 Materials Processing

- 336** Costen, R. C.: Thermal Edge-Effects Model for Automated Tape Placement of Thermoplastic Composites. Presented at 45th International SAMPE Symposium and Exhibit, May 21-25, 2000, Long Beach, California. In Proceedings, Volume 45, p. 721-733.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-45sampe-rcc.pdf>
Organization RC RTOP 713-23-02

Engineering

Category 31 Engineering (General)

- 337** Antaki, J. F.; Paden, B.; Burgreen, G.; and Groom, N. J.: Magnetically Suspended Miniature Fluid Pump and Method of Designing the Same. U. S. Patent 6,015,272. Issued January 18, 2000.
Organization RD
- 338** Bloodgood, V. D., Jr.; Groom, N. J.; and Britcher, C. P.: Further Development of an Optimal Design Approach Applied to Axial Magnetic Bearings. Presented at 7th International Symposium on Magnetic Bearings, August 23-25, 2000, Zurich, Switzerland. In Proceedings, p. 484-494.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-7ismb-vdb.pdf>
Organization RD RTOP 522-17-31
- 339** Chu, W. P.: SAGE III Stratospheric Aerosol and Gas Experiment III. Presented at SAGE III Argentina Meeting, September 12-13, 2000, Hampton, Virginia.
Organization RE RTOP 428-31-01
- 340** Chu, W. P.; Trepte, C. R.; and Cisewski, M.: Science Mission Operations Ground Segment for SAFE III CONAE. Presented at SAGE III Argentina Meeting, September 12-13, 2000, Hampton, Virginia.
Organization RE RTOP 428-31-01
- 341** Groom, N. J.; and Bloodgood, V. D., Jr.: A Comparison of Analytical and Experimental Data for a Magnetic Actuator. NASA/TM-2000-210328, September 2000, 34 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210328.pdf>
Organization RD RTOP 522-17-51
- 342** Lim, K. B.; and Giesy, D. P.: Parameterization of Model Validating Sets for Uncertainty Bound Optimizations. *Journal of Guidance, Control, and Dynamics*, Volume 23, No. 2, March–April 2000, p. 222-230.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/jp/NASA-2000-ajgcd-kbl.pdf>
Organization RD RTOP 577-30-31

Category 32 Communications and Radar

- 343** Deshpande, M. D.: Electromagnetic Field Penetration Studies. (NAS1-96013 NYMA, Inc.) NASA/CR-2000-210297, June 2000, 71 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210297.pdf>
Organization RD RTOP 522-31-21
- 344** Rinsland, C. P.; Salawitch, R. J.; Osterman, G. B.; Irion, F. W.; Sen, B.; Toon, G. C.; Zander, R.; Mahieu, E.; and Gunson, M. R.: Stratospheric CO at Tropical and Mid-Latitudes: ATMOS Measurements and Photochemical Steady-State Model Calculation. *Geophysical Research Letters*, Volume 27, No. 9, May 1, 2000, p. 1395-1398.
Organization RE RTOP 622-56-37

Category 33 Electronics and Electrical Engineering

- 345** Choi, S. H.; Golembiewski, W. T.; and Song, K. D.: Networked Rectenna Array for Smart Material Actuators. Presented at 35th Intersociety Energy Conversion Engineering Conference, July 24-28, 2000, Las Vegas, Nevada. AIAA Paper No. 2000-3066.
Organization RC RTOP 714-05-01
- 346** Ely, J. J.; Nguyen, T. X.; Dudley, K. L.; Scearce, S. A.; Beck, F. B.; Deshpande, M. D.; and Cockrell, C. R.: An Investigation of EME as a Potential Cause of Fuel Tank Ignition. Presented at 19th Digital Avionics Systems Conference, October 7-13, 2000, Philadelphia, Pennsylvania. In Proceedings, Paper No. 3A1.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-19dasc-jje.pdf>
Organization RD RTOP 522-14-21
- 347** Ely, J. J.; Nguyen, T. X.; Dudley, K. L.; Scearce, S. A.; Beck, F. B.; Deshpande, M. D.; and Cockrell, C. R.: Investigation of Electromagnetic Field Threat to Fuel Tank Wiring of a Transport Aircraft. NASA/TP-2000-209867, March 2000, 200 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp209867.pdf>
Organization RD RTOP 522-14-21
- 348** Fisher, F. A.: Some Notes on Sparks and Ignition of Fuels. NASA/TM-2000-210077, March 2000, 40 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210077.pdf>
Organization RD RTOP 522-14-21
- 349** Hodson, R. F.; Wilson, W. C.; and Armstrong, C. D.: Pattern Generation Space Applications of Focal Plane Arrays. Presented at 9th NASA Symposium on VLSI Design, November 8-9, 2000, Albuquerque, New Mexico.
Organization RF RTOP 632-62-00

- 350** Kahng, S. K.; Scott, M. A.; Beeler, G. B.; Bartlett, J. E.; and Collins, R. S.: An Integrated MEMS Sensor Cluster System for Aerospace Applications. Presented at Nanospace 2000, January 23-28, 2000, Houston, Texas.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-nano-skk.pdf>
Organization RB RTOP 522-20-21
- 351** McAdoo, J. A.: Review of Concepts and Applications for Multispectral/Hyperspectral Focal Plane Arrays (FPA) Technology. Presented at SPIE's 2nd International Asia-Pacific Symposium on Remote Sensing of the Atmosphere, Environment, and Space, October 9-12, 2000, Sendai, Japan.
Organization RF RTOP 258-80-00
- 352** Nguyen, T. X.: RF Loading Effects of Aircraft Seats in an Electromagnetic Reverberating Environment. NASA/TM-2000-210626, December 2000, 12 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210626.pdf>
Organization RD RTOP 552-14-21
- 353** Nguyen, T. X.; Dudley, K. L.; Scearce, S. A.; Ely, J. J.; Richardson, R. E.; and Hatfield, M. O.: RF Coupling Into the Fuel Tank of a Large Transport Aircraft From Intentionally Transmitting PEDs in the Passenger Cabin. Presented at 19th Digital Avionics Systems Conference, October 7-13, 2000, Philadelphia, Pennsylvania. In Proceedings, Paper No. 3.A.4.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-19dasc-txn.pdf>
Organization RD RTOP 522-14-21
- 354** Refaat, T. F.; and Elsayed-Ali, H. E.: Advanced Atmospheric Water Vapor DIAL Detection System. (L-68314D Old Dominion University.) NASA/CR-2000-210301, June 2000, 155 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210301.pdf>
Organization RE RTOP 622-63-13
- 355** Refaat, T. F.; Halama, G. E.; and De Young, R. J.: Characterization of Advanced Avalanche Photodiodes for Water Vapor Lidar Receivers. NASA/TP-2000-210096, July 2000, 62 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp210096.pdf>
Organization RE RTOP 622-63-13
- 356** Refaat, T. F.; Halama, G. E.; and De Young, R. J.: Comparison Between Super Low Ionization Ratio and Reach Through Avalanche Photodiode Structures. *Optical Engineering*, Volume 39, No. 10, October 2000, p. 2642-2650.
Organization RE RTOP 622-63-13
- 357** Roberts, M. J.: Temporal Microwave Nondestructive Evaluation for Material Characterization, Void and Moisture Detection in Layered Structures. Presented at 27th Annual Review of Progress in Quantitative Nondestructive Evaluation, July 16-21, 2000, Ames, Iowa.
Organization RC RTOP 706-12-21

- 358** Williamson, C. K.; and De Young, R. J.: Characterization of a 16-Bit Digitizer for Lidar Data Acquisition. NASA/TM-2000-209860, February 2000, 17 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209860.pdf>
Organization RE RTOP 274-00-99
- 359** Wilson, W. C.: Communication Controller Board for a Wind-Tunnel Model. NASA Tech Brief L-17816, March 2000.
Organization RF
- 360** Wilson, W. C.; Hodson, R. F.; and Armstrong, C. D.: Architecture of a SOI General Pattern Generator (PATGEN) ASIC. Presented at 9th NASA Symposium on VLSI Design, November 8-9, 2000, Albuquerque, New Mexico.
Organization RF RTOP 632-62-00
- 361** Wilson, W. C.; Hodson, R. F.; and Armstrong, C. D.: Architecture of a Programmable Pattern Generator (PATGEN) ASIC for Space Applications. Presented at 2000 MAPLD Conference, September 26-28, 2000, Laurel, Maryland.
Organization RF RTOP 632-62-00

Category 34 Fluid Mechanics and Heat Transfer

- 362** Allan, B. G.: A Reduced Order Model of the Linearized Incompressible Navier-Stokes Equations for the Sensor/Actuator Placement Problem. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210110, ICASE Report No. 2000-19, April 2000, 30 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-19.pdf>
Organization A RTOP 505-90-52
- 363** Berry, S. A.; Auslender, A. H.; Dilley, A. D.; and Calleja, J. C.: Hypersonic Boundary-Layer Trip Development for Hyper-X. Presented at 18th AIAA Applied Aerodynamics Conference and Exhibit, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4012.
Organization RB RTOP 242-80-01
- 364** Berry, S. A.; DiFulvio, M.; and Kowalkowski, M. K.: Forced Boundary-Layer Transition on X-43 (Hyper-X) in NASA LaRC 20-Inch Mach 6 Air Tunnel. NASA/TM-2000-210316, August 2000, 63 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210316.pdf>
Organization RB RTOP 242-80-01
- 365** Berry, S. A.; DiFulvio, M.; and Kowalkowski, M. K.: Forced Boundary-Layer Transition on X-43 (Hyper-X) in NASA LaRC 31-Inch Mach 10 Air Tunnel. NASA/TM-2000-210315, August 2000, 78 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210315.pdf>
Organization RB RTOP 242-08-01

- 366** Blanchard, R. C.; and Tietjen, A.: Infrared Sensing Aeroheating Flight Experiment (ISAFE). Presented at 9th International Symposium on Flow Visualization, August 22-25, 2000, Edinburgh, Scotland.
Organization RB RTOP 242-80-01
- 367** Bushnell, D. M.: Fluid Mechanics, Drag Reduction and Advanced Configuration Aeronautics. NASA/TM-2000-210646, December 2000, 20 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210646.pdf>
Organization A RTOP 282-10-01
- 368** Ditkowski, A.; Gottlieb, D. I.; and Sheldon, B. W.: Optimization of Chemical Vapor Infiltration With Simultaneous Powder Formation. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210620, ICASE Report No. 2000-44, November 2000, 21 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-44.pdf>
Organization A RTOP 505-90-52
- 369** Dubrulle, B.; and He, G.: Possible Statistics of Two Coupled Random Fields: Application to Passive Scalar. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210553, ICASE Report No. 2000-41, November 2000, 21 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-41.pdf>
Organization A RTOP 505-90-52
- 370** Gatski, T. B.: Modeling and Simulation of Turbulence. Presented at University of Rome Short Course on Modeling and Simulation of Turbulence, September 18-29, 2000, Rome, Italy.
Organization RB RTOP 706-31-11
- 371** Gatski, T. B.: Turbulence Modeling and Compressible Flows. Presented at Japanese Society of Mechanical Engineering Short Course on New Developments in Mathematical Modelling and Numerical Simulation for Turbulent Transport Phenomena, April 7-8, 2000, Tokyo, Japan.
Organization RB RTOP 706-31-11
- 372** Gatski, T. B.: Developing Transition-Sensitized Turbulence Models. Presented at Japanese Society of Mechanical Engineering Short Course on New Developments in Mathematical Modelling and Numerical Simulation for Turbulent Transport Phenomena, April 7-8, 2000, Tokyo, Japan.
Organization RB RTOP 706-31-11
- 373** Gatski, T. B.: Obtaining Explicit Representations of Algebraic Tensor Anisotropy Equations in Turbulence. Presented at Japanese Society of Mechanical Engineering Short Course on New Developments in Mathematical Modelling and Numerical Simulation for Turbulent Transport Phenomena, April 7-8, 2000, Tokyo, Japan.
Organization RB RTOP 706-31-11

- 374** Gatski, T. B.; and Jongen, T.: Nonlinear Eddy Viscosity and Algebraic Stress Models for Solving Complex Turbulent Flows. *Progress in Aerospace Sciences*, Volume 36, No. 8, November 2000, p. 655-682.
Organization RB RTOP 522-31-11
- 375** Glass, C. E.: Numerical Study of Rarefied Hypersonic Flow Interacting With a Continuum Jet. NASA/TP-2000-210551, November 2000, 219 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp210551.pdf>
Organization RB RTOP 242-80-01
- 376** Glass, C. E.; and Gnoffo, P. A.: A 3-D Coupled CFD-DSMC Solution Method With Application to the Mars Sample Return Orbiter. NASA/TM-2000-210322, July 2000, 12 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210322.pdf>
Organization RB RTOP 242-80-01
- 377** Glass, C. E.; and Gnoffo, P. A.: A 3-D Coupled CFD-DSMC Solution Method With Application to the Mars Sample Return Orbiter. Presented at 22nd International Symposium on Rarefied Gas Dynamics, July 9-14, 2000, Sydney, Australia. In Proceedings, Paper No. 4003.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-22isrgd-ceg.pdf>
Organization RB RTOP 242-80-01
- 378** Gould, D. C.: Thermal Design and Analysis of the Stratospheric Aerosol and Gas Experiment III (SAGE III) for the ISS Mission. Presented at Eleventh Thermal and Fluids Analysis Workshop (TFAWS 2000), August 21-25, 2000, Cleveland, Ohio. In Proceedings.
Organization RF RTOP 495-40-00
- 379** Gould, D. C.: Radiation Heat Transfer Between Diffuse-Gray Surfaces Using Higher Order Finite Elements. Presented at 34th AIAA Thermophysics Conference, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2371.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-2371.pdf>
Organization RF RTOP 537-09-20
- 380** Hanuska, A.; Scott, E. P.; and Daryabeigi, K.: Thermal Characterization of Aerospace Structures. *Journal of Thermophysics and Heat Transfer*, Volume 14, No. 3, July–September 2000, p. 322-329.
Organization RC RTOP 713-23-04
- 381** Hart, R. C.; Balla, R. J.; and Herring, G. C.: Simultaneous Velocimetry and Thermometry of Air Using Nonresonant Heterodyned Laser-Induced Thermal Acoustics. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210118, ICASE Report No. 2000-22, May 2000, 12 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-22.pdf>
Organization A RTOP 505-90-52

- 382** Hart, R. C.; Balla, R. J.; and Herring, G. C.: Optical Measurement of the Speed of Sound in Air Over the Temperature Range 300-650 K. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210114, ICASE Report No. 2000-20, April 2000, 9 p.
<ftp://ftp.icode.edu/pub/techreports/2000/2000-20.pdf>
Organization A RTOP 505-90-52
- 383** He, G.; and Rubinstein, R.: Mapping Closure Approximation to Conditional Dissipation Rate for Turbulent Scalar Mixing. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210631, ICASE Report No. 2000-48, December 2000, 12 p.
<ftp://ftp.icode.edu/pub/techreports/2000/2000-48.pdf>
Organization A RTOP 505-90-52
- 384** Horvath, T. J.; Berry, S. A.; and Fitzgerald, S. M.: X-38 Experimental Aerothermodynamics. Presented at 34th AIAA Thermophysics Conference, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2685.
Organization RB RTOP 242-80-01
- 385** Jenkins, L. N.: An Experimental Investigation of the Flow Over the Rear End of a Notchback Automobile Configuration. Presented at SAE International Congress and Exposition, March 6-9, 2000, Detroit, Michigan. SAE Paper No. 2000-01-0489.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-saeice-lnj.pdf>
Organization RB RTOP 522-31-61
- 386** Jordan, T. L.; Ounaies, Z.; Tripp, J. S.; and Tcheng, P.: Electrical Properties and Power Considerations of a Piezoelectric Actuator. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-209861, ICASE Report No. 2000-8, February 2000, 13 p.
<ftp://ftp.icode.edu/pub/techreports/2000/2000-8.pdf>
Organization A RTOP 505-90-52
- 387** King, R. A.; and Breuer, K. S.: Oblique Transition in a Blasius Boundary Layer. Presented at 20th International Congress of Theoretical and Applied Mechanics, August 27-September 2, 2000, Chicago, Illinois. In Proceedings, TAM Report No. 950, ISSN 0073-5264, Paper No. GB05.
Organization RB RTOP 522-31-11
- 388** King, R. A.; and Breuer, K. S.: Oblique Transition in a Blasius Boundary Layer. Presented at Fluids 2000 Conference and Exhibit, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2537.
Organization RB RTOP 522-31-61

- 389** King, R. A.; and Breuer, K. S.: Acoustic Receptivity of a Blasius Boundary Layer With 2-D and Oblique Surface Waviness. Presented at Fluids 2000 Conference and Exhibit, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2538.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-2538.pdf>
Organization RB RTOP 522-31-11
- 390** Lallemand, P.; and Luo, L-S.: Theory of the Lattice Boltzmann Method: Dispersion, Dissipation, Isotropy, Galilean Invariance, and Stability. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210103, ICASE Report No. 2000-17, April 2000, 35 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-17.pdf>
Organization A RTOP 505-90-52
- 391** Lin, J. C.; Yao, C-S.; and Klausmeyer, S. M.: Micro-Vortex Generators for Flow Separation Control and High-Lift Performance Enhancement. Presented at 20th International Congress of Theoretical and Applied Mechanics, August 27–September 2, 2000, Chicago, Illinois. In Proceedings, TAM Report No. 950, ISSN 0073-5264.
Organization RB RTOP 251-30-07
- 392** Lockard, D. P.; Luo, L-S.; and Singer, B. A.: Evaluation of the Lattice-Boltzmann Equation Solver PowerFLOW for Aerodynamic Applications. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210550, ICASE Report No. 2000-40, October 2000, 48 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-40.pdf>
Organization A RTOP 505-90-52
- 393** Luo, L-S.: Some Recent Results on Discrete Velocity Model and Ramifications for Lattice Boltzmann Equation. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-209855, ICASE Report No. 2000-7, February 2000, 18 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-7.pdf>
Organization A RTOP 505-90-52
- 394** Mei, R.; Luo, L-S.; and Shyy, W.: An Accurate Curved Boundary Treatment in the Lattice Boltzmann Method. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-209854, ICASE Report No. 2000-6, February 2000, 25 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-6.pdf>
Organization A RTOP 505-90-52
- 395** Moss, J. N.: DSMC Simulation of Separated Flows About Flared Bodies at Hypersonic Conditions. Presented at European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2000), September 11-14, 2000, Barcelona, Spain.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-eccomas-jnm.pdf>
Organization RB RTOP 242-80-01

- 396** Moss, J. N.: DSMC Simulations of Shock Interactions About Sharp Double Cones. Presented at 22nd International Symposium on Rarefied Gas Dynamics, July 9-14, 2000, Sydney, Australia. In Proceedings.
Organization RB RTOP 242-80-01
- 397** Moss, J. N.: DSMC Simulations of Shock Interactions About Sharp Double Cones. NASA/TM-2000-210318, August 2000, 13 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210318.pdf>
Organization RB RTOP 242-80-01
- 398** Moss, J. N.: DSMC Simulation of Separated Flows About Flared Bodies at Hypersonic Conditions. NASA/TM-2000-210539, October 2000, 25 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210539.pdf>
Organization RB RTOP 242-80-01
- 399** Povitsky, A.: Improving Jet Reactor Configuration for Production of Carbon Nanotubes. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210108, ICASE Report No. 2000-18, April 2000, 25 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-18.pdf>
Organization A RTOP 505-90-52
- 400** Povitsky, A.: Numerical Study of Wave Propagation in a Non-Uniform Flow. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210533, ICASE Report No. 2000-35, September 2000, 31 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-35.pdf>
Organization A RTOP 505-90-52
- 401** Rokni, M.; and Gatski, T. B.: Predicting Turbulent Flow and Heat Transfer in 3D Ducts Using an EASM. Presented at 3rd International Symposium on Turbulence, Heat and Mass Transfer, April 3-6, 2000, Nagoya, Japan. In Proceedings, p. 357-364.
Organization RB RTOP 706-31-11
- 402** Roth, J. R.; Sherman, D. M.; and Wilkinson, S. P.: Electrohydrodynamic Flow Control With a Glow-Discharge Surface Plasma. *AIAA Journal*, Volume 38, No. 7, July 2000, p. 1166-1172.
Organization RB RTOP 522-33-31
- 403** Rubinstein, R.: Formulation of a Two-Scale Model of Turbulence. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-209853, ICASE Report No. 2000-5, February 2000, 18 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-5.pdf>
Organization A RTOP 505-90-52

- 404** Rubinstein, R.; and Auslender, A. H.: Non-Ideal Gas Effects on Shock Waves in Weakly Ionized Gases. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210081, ICASE Report No. 2000-3, January 2000, 13 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-3.pdf>
Organization A RTOP 505-90-52
- 405** Rubinstein, R.; and Choudhari, M. M.: Statistical Prediction of Laminar-Turbulent Transition. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210638, ICASE Report No. 2000-50, December 2000, 39 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-50.pdf>
Organization A RTOP 505-90-52
- 406** Rumsey, C. L.; and Gatski, T. B.: Recent Turbulence Model Advances Applied to Multi-Element Airfoil Computations. Presented at 18th AIAA Applied Aerodynamics Conference and Exhibit, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4323. In Proceedings, Volume 2, p. 530-540.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-4323.pdf>
Organization RB RTOP 706-13-11
- 407** Seifert, A.; and Pack, L. G.: Sweep and Compressibility Effects on Active Separation Control at High Reynolds Numbers. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0410.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0410.pdf>
Organization RB RTOP 522-32-31
- 408** Seifert, A.; and Pack, L. G.: Separation Control at Flight Reynolds Numbers: Lessons Learned and Future Directions. Presented at Fluids 2000 Conference and Exhibit, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2542.
Organization RB RTOP 522-32-31
- 409** Singer, B. A.; Lockard, D. P.; and Brentner, K. S.: Computational Aeroacoustic Analysis of Slat Trailing-Edge Flow. *AIAA Journal*, Volume 38, No. 9, September 2000, p. 1558-1564.
Organization RB RTOP 522-31-61
- 410** So, R. M.; Zhao, C. Y.; and Gatski, T. B.: Predicting Buoyant Shear Flows Using Anisotropic Dissipation Rate Models. *Flow, Turbulence and Combustion*, Volume 63, No. 1-4, 1999/2000, p. 193-221.
Organization RB RTOP 706-31-21
- 411** Thacker, W. D.; Grosch, C. E.; and Gatski, T. B.: Modeling the Dynamics of Ensemble-Averaged Linear Disturbances in Homogeneous Shear Flow. *Flow, Turbulence and Combustion*, Volume 63, No. 1-4, 1999/2000, p. 39-58.
Organization RB RTOP 706-31-21

- 412** Thompson, R. A.: Review of X-33 Hypersonic Aerodynamic and Aerothermodynamic Development. Presented at 22nd Congress of the International Council of the Aeronautical Sciences, August 27–September 1, 2000, Harrogate, United Kingdom. ICAS Paper No. 0323.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-22cicas-rat.pdf>
Organization RB RTOP 242-80-01
- 413** Watson, R. D.: Review of Skin Friction Measurements Including Recent High Reynolds Number Results From Langley NTF. Presented at Fluids 2000 Conference and Exhibit, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2392.
Organization RB RTOP 522-31-11

Category 35 Instrumentation and Photography

- 414** Burner, A. W.: Model Deformation Measurements at NASA Wind Tunnels Using Videogrammetry. Presented at 37th Annual Technical Meeting of the Society of Engineering Science, October 23-25, 2000, Columbia, South Carolina.
Organization RB RTOP 704-20-21
- 415** Burner, A. W.; Fleming, G. A.; and Hoppe, J. C.: Comparison of Three Optical Methods for Measuring Model Deformation. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0835.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0835.pdf>
Organization RB RTOP 704-20-21
- 416** Burner, A. W.; Liu, T.; Garg, S.; Ghee, T. A.; and Taylor, N. J.: Aeroelastic Deformation Measurements of Flap, Gap, and Overhang on a Semispan Model. Presented at 21st AIAA Aerodynamic Measurement Technology and Ground Testing Conference, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2386.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-2386.pdf>
Organization RB RTOP 704-20-21
- 417** Crawford, B. L.; and Finley, T. D.: Improved Correction System for Vibration Sensitive Inertial Angle of Attack. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0415.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0415.pdf>
Organization RB RTOP 992-35-12
- 418** Davis, R. E.; and Nolf, S. R.: The Distribution of Sky Radiance in the Visible and Near IR, as Modeled by Modtran, and Its Applications to Surface Irradiance Modeling. Presented at 23rd Annual Review of Atmospheric Transmission Models, June 21-23, 2000, Hanscom AFB, Massachusetts.
Organization RF RTOP 258-70-21

- 419** DeLoach, R.: The Modern Design of Experiments: A Technical and Marketing Framework. Presented at 21st AIAA Aerodynamic Measurement Technology and Ground Testing Conference, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2691.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-2691.pdf>
Organization RB RTOP 992-20-03
- 420** DeLoach, R.: Improved Quality in Aerospace Testing Through the Modern Design of Experiments. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0825.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0825.pdf>
Organization RB RTOP 992-20-03
- 421** Froggatt, M. E.; Childers, B. A.; Moore, J. P.; and Erdogan, T.: High Density Strain Sensing Using Optical Frequency Domain Reflectometry. Presented at 14th International Conference on Optical Fiber Sensors, October 11-13, 2000, Venice, Italy.
Organization RC RTOP 706-13-41
- 422** Hare, D. A.; and Moore, T. C., Sr.: Characteristics of Extrinsic Fabry-Perot Interferometric (EFPI) Fiber-Optic Strain Gages. NASA/TP-2000-210639, December 2000, 22 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp210639.pdf>
Organization RB RTOP 706-13-31
- 423** Hare, D. A.; and Moore, T. C., Sr.: Evaluation of GE-167 Silicone Rubber (RTV) for Possible Service as a Moisture-Barrier for Certain Strain Gage Applications. NASA/TM-2000-210087, April 2000, 22 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210087.pdf>
Organization RB RTOP 992-35-12
- 424** Hart, R. C.; Balla, R. J.; and Herring, G. C.: Optical Measurement of the Speed of Sound in Air Over the Temperature Range 300-650 K. *Journal of the Acoustical Society of America*, Volume 108, No. 4, October 2000, p. 1946-1948.
Organization RB RTOP 522-31-61
- 425** Huck, F. O.; Fales, C. L., Jr.; Davis, R. E.; and Alter-Gartenberg, R.: Visual Communication With Retinex Coding. *Applied Optics*, Volume 39, No. 11, April 10, 2000, p. 1711-1730.
Organization RD RTOP 274-00-99
- 426** Johnson, J. W.; Lawrence, R. W.; and Munden, W. M., III: Efficiency and Performance in Coherent Detection Algorithms for Synthetic Aperture Radiometry. Presented at IEEE International Geoscience and Remote Sensing Symposium 2000, July 24-28, 2000, Honolulu, Hawaii. In Proceedings, Paper No. INT2.15.
Organization RD RTOP 258-70-21

- 427** Koch, G. J.; Davis, R. E.; Fitzgerald, C. M.; Dharamsi, A. N.; and Petros, M.: Multifunction Lidar: Measurement of Wind, Water Vapor, and Aerosols With an Eye-Safe Coherent Lidar. Presented at 20th International Laser Radar Conference, July 10-14, 2000, Vichy, France.
 Organization RF RTOP 274-00-00
- 428** Lawrence, R. W.: Radiometric Characterization of Mesh Reflector Material for Deployable Real Aperture Remote Sensing Applications. Presented at The First International Microwave Radiometer Calibration Workshop, October 30-31, 2000, Greenbelt, Maryland.
 Organization RD RTOP 258-70-21
- 429** Lawrence, R. W.; and Campbell, T. G.: Radiometric Characterization of Mesh Reflector Material for Deployable Real Aperture Remote Sensing Applications. Presented at IEEE International Geoscience and Remote Sensing Symposium 2000, July 24-28, 2000, Honolulu, Hawaii.
 Organization RD RTOP 258-80-00
- 430** Liu, T.; Cattafesta, L. N., III; Radeztsky, R. H.; and Burner, A. W.: Photogrammetry Applied to Wind Tunnel Testing. *AIAA Journal*, Volume 38, No. 6, June 2000, p. 964-971.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/jp/NASA-2000-aj-tl.pdf>
 Organization RB RTOP 519-20-21
- 431** Mackenzie, A. I.: Comparison of Thermal Coefficients for Diode RF Detector Versus Flash ADC RF Detector. Presented at The First International Microwave Radiometer Calibration Workshop, October 30-31, 2000, Greenbelt, Maryland.
 Organization RD RTOP 258-70-21
- 432** Mackenzie, A. I.; and Lawrence, R. W.: Three Averaging Techniques for Reduction of Antenna Temperature Variance Measured by a Dicke Mode, C-Band Radiometer. NASA/TM-2000-210283, May 2000, 34 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210283.pdf>
 Organization RD RTOP 258-70-21
- 433** Ross, R. W.: Next Generation Data Acquisition Systems. Presented at 93rd Semi-Annual Meeting of Supersonic Tunnel Association International, April 30–May 2, 2000, Sunnyvale, California.
 Organization RB RTOP 704-20-21
- 434** Shams, Q. A.; Wright, K. D., II; Lunsford, C. B.; and Smith, C. D.: Field-Deployable Acoustic Measurement Systems for Noise. Presented at 2000 Meeting of the MSS Specialty Group of Battlefield Acoustics, October 17-19, 2000, Laurel, Maryland.
 Organization RB RTOP 522-81-16
- 435** Sheplak, M.; McGinley, C. B.; Spina, E. F.; Stephens, R. M.; Hopson, P., Jr.; and Cruz, V. B.: Method of Forming Micro-Sensor Thin-Film Anemometer. U. S. Patent 6,018,861. Issued February 1, 2000.
 Organization RF

- 436** Subramanian, C. S.; Amer, T. R.; Oglesby, D. M.; and Burkett, C. G., Jr.: Intensity Biased PSP Measurement. Presented at 21st AIAA Aerodynamic Measurement Technology and Ground Testing Conference, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2526.
 Organization RB RTOP 992-20-03
- 437** Talley, M. A.; and Jones, S. B.: Development of a Large Field of View Shadowgraph for a 16 Ft. Transonic Wind Tunnel. Presented at OPTO-Southeast: SPIE's Regional Meeting on Optoelectronics, Photonics, and Imaging, September 18-19, 2000, Charlotte, North Carolina.
 Organization RB RTOP 992-20-03
- 438** Talley, M. A.; Jones, S. B.; and Goodman, W. L.: Development of a Large Field of View Shadowgraph System for a 16 Ft. Transonic Wind Tunnel. NASA/TM-2000-210311, September 2000, 26 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210311.pdf>
 Organization RB RTOP 992-20-03
- 439** Zuckerwar, A. J.: Electronically Scanned Pressure Measurement Module for Operation Over a Wide Temperature Range. Presented at 21st AIAA Aerodynamic Measurement Technology and Ground Testing Conference, June 19-22, 2000, Denver, Colorado. AIAA Paper No. 2000-2387.
 Organization RB RTOP 992-20-01
- 440** Zuckerwar, A. J.; Humphreys, W. M., Jr.; and Bartram, S. M.: Calibration of Electret Microphone Cartridges for Application in a Multi-Channel Acoustic Array. Presented at 140th Meeting of the Acoustical Society of America and Noise-Con 2000, December 3-8, 2000, Newport Beach, California.
 Organization RB RTOP 522-32-21

Category 36 Lasers and Masers

- 441** Allison, S. G.; Fox, R. L.; Foggatt, M. E.; and Childers, B. A.: THUNDER Piezoelectric Actuators as a Method of Stretch-Tuning an Optical Fiber Grating. Presented at SPIE's 7th Annual International Symposium on Smart Structures and Materials, March 5-9, 2000, Newport Beach, California. In Proceedings.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-7spie-sga.pdf>
 Organization RC RTOP 522-63-41
- 442** Axenson, T. J.; Barnes, N. P.; and Reichle, D. J., Jr.: 946 nm Diode Pumped Laser Produces 100 mJ. Presented at SPIE's 2nd International Asia-Pacific Symposium on Remote Sensing of the Atmosphere, Environment, and Space, October 9-12, 2000, Sendai, Japan. In Proceedings, Paper No. 11.
 Organization RF RTOP 258-70-21

- 443** Barnes, N. P.; Murray, K. E.; and Hutcheson, R. L.: Method of Controlling Lasing Wavelength(s). U. S. Patent 6,141,368. Issued October 31, 2000.
Organization RF
- 444** Barnes, N. P.; Walsh, B. M.; and Reichle, D. J., Jr.: Remote Sensing of Water Vapor Using a 0.94 μm Laser. Presented at 20th International Laser Radar Conference, July 10-14, 2000, Vichy, France.
Organization RF RTOP 258-70-21
- 445** Chen, S.; Storm, M. E.; Marsh, W. D.; Petway, L. B.; Edwards, W. C.; and Barnes, J. C.: A Compact Ti:Sapphire Laser With its Third Harmonic Generation (THG) for an Airborne Ozone Differential Absorption Lidar (DIAL) Transmitter. Presented at SPIE's 2nd International Asia-Pacific Symposium on Remote Sensing of the Atmosphere, Environment, and Space, October 9-12, 2000, Sendai, Japan.
Organization RF RTOP 258-70-21
- 446** Cook, A. L.; and Hendricks, H. D.: Apparatus for Linewidth Reduction in Distributed Feedback or Distributed Bragg Reflector Semiconductor Lasers Using Vertical Emission. U. S. Patent 6,075,805. Issued June 13, 2000.
Organization RD
- 447** Fleming, G. A.; and Gorton, S. A.: Measurement of Rotorcraft Blade Deformation Using Projection Moiré Interferometry. *Shock and Vibration*, Volume 7, No. 3, 2000, p. 149-166.
Organization RB RTOP 522-20-21
- 448** Koch, G. J.; Dharamsi, A. N.; Fitzgerald, C. M.; and McCarthy, J. C.: Frequency Stabilization of a Ho:Tm:YLF Laser to Absorption Lines of Carbon Dioxide. *Applied Optics*, Volume 39, No. 21, July 20, 2000, p. 3664-3669.
Organization RF RTOP 274-00-00
- 449** Meyers, J. F.; and Lee, J. W.: Identification and Minimization of Errors in Doppler Global Velocimetry Measurements. Presented at Tenth International Symposium on Applications of Laser Techniques to Fluid Mechanics, July 10-13, 2000, Lisbon, Portugal.
Organization RB RTOP 581-10-11
- 450** Murray, K. E.; Barnes, N. P.; Walsh, B. M.; Hutcheson, R. L.; and Kokta, M. R.: Multiwavelength Laser for Medical Applications and the Implications of Atmospheric Lensing. Presented at Advanced Solid State Lasers Conference, February 13-16, 2000, Davos, Switzerland.
Organization RF RTOP 258-70-21
- 451** Refaat, T. F.; and De Young, R. J.: Validation of an Advanced Lidar Detection System for Aerosol and Water Vapor Measurements. Presented at 20th International Laser Radar Conference, July 10-14, 2000, Vichy, France. In Proceedings.
Organization RE RTOP 622-63-13

- 452** Singh, U. N.: Advanced Solid State Lasers for Remote Sensing Applications. Presented at 20th International Laser Radar Conference, July 10-14, 2000, Vichy, France.
Organization RF RTOP 258-70-21
- 453** Yu, J.; Petros, M.; Singh, U. N.; Barnes, J. C.; and Barnes, N. P.: A High Energy 2 Micron Laser for Multiple Lidar Applications. Presented at SPIE's 2nd International Asia-Pacific Symposium on Remote Sensing of the Atmosphere, Environment, and Space, October 9-12, 2000, Sendai, Japan. In Proceedings.
Organization RF RTOP 258-70-21

Category 37 Mechanical Engineering

- 454** Jalink, A., Jr.; Hellbaum, R. F.; and Rohrbach, W. W.: Ferroelectric Pump. U. S. Patent 6,071,087. Issued June 6, 2000.
Organization RF
- 455** Lake, M. S.; and Hachkowski, M. R.: Design of Mechanisms for Deployable, Optical Instruments: Guidelines for Reducing Hysteresis. NASA/TM-2000-210089, March 2000, 45 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210089.pdf>
Organization RC RTOP 632-64-00

Category 38 Quality Assurance and Reliability

- 456** Anon.: Failure Modes and Effects Analysis (FMEA)—A Bibliography. NASA/SP-2000-6110, July 2000, 187 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/spec/NASA-2000-sp6110.pdf>
Organization RF RTOP 284-30-10
- 457** Anon.: Probabilistic Risk Assessment—A Bibliography. NASA/SP-2000-6112, July 2000, 83 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/spec/NASA-2000-sp6112.pdf>
Organization RF RTOP 284-30-10
- 458** Prosser, W. H.; Zakrajsek, J.; Schweikhard, K.; Fox, J.; Gormley, T.; and Pallix, J.: Integrated Vehicle Health Management for NASA Reusable Launch Vehicles. Presented at 2000 National Space and Missile Materials Symposium, February 28–March 2, 2000, San Diego, California.
Organization RC RTOP 713-10-61

Category 39 Structural Mechanics

- 459** Ambur, D. R.; and Starnes, J. H., Jr.: Influence of Target and Impactor Parameters on the Nonlinear Response and Residual Strength of Curved Thin Composite Plates. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1591.
Organization RC RTOP 242-82-76
- 460** Arbocz, J.; Starnes, J. H., Jr.; and Nemeth, M. P.: A Comparison of Probabilistic and Lower Bound Methods for Predicting the Response of Buckling Sensitive Structures. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1382.
Organization RC RTOP 522-11-41
- 461** Baker, D. J.: Evaluation of Thin Kevlar-Epoxy Fabric Panels Subjected to Shear Loading. *Journal of Aircraft*, Volume 37, No. 1, January–February 2000, p. 138-143.
Organization RC RTOP 581-10-21
- 462** Baker, D. J.: Analysis and Test of a Tailored Extension-Shear-Coupled Composite Panel. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia.
Organization RC RTOP 712-01-21
- 463** Baker, D. J.; and Rousseau, C. Q.: Analysis and Test of Repair Concepts for a Carbon-Rod Reinforced Laminate. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. In Proceedings, AIAA Paper No. 2000-1596.
Organization RC RTOP 712-10-21
- 464** Barut, A.; Madenci, E.; and Tessler, A.: Nonlinear Thermoelastic Analysis of Composite Panels Under Non-Uniform Temperature Distribution. *International Journal of Solids and Structures*, Volume 37, No. 27, July 2000, p. 3681-3713.
Organization RC RTOP 537-06-34
- 465** Cowan, A. L.; Davila, C. G.; Johnson, E. R.; and Starnes, J. H., Jr.: Crack Path Bifurcation at a Tear Strap in a Pressurized Shell. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1517.
Organization RC RTOP 522-18-11
- 466** Davila, C. G.; and Chen, T-K.: Advanced Modeling Strategies for the Analysis of Tile-Reinforced Composite Armor. *Applied Composite Materials*, Volume 7, No. 1, January 2000, p. 51-68.
Organization RC RTOP 538-13-12

- 467** Fasanella, E. L.; Jackson, K. E.; and Lyle, K. H.: Finite Element Simulation of a Full-Scale Crash Test of a Composite Helicopter. Presented at American Helicopter Society 56th Annual Forum and Technology Display, May 2-4, 2000, Virginia Beach, Virginia.
Organization RC RTOP 522-18-31
- 468** Fichter, W. B.: Transverse Stress Decay in a Specially Orthotropic Strip Under Localized Normal Edge Loading. *Mechanics of Composite Materials and Structures*, Volume 7, 2000, p. 153-175.
Organization RC RTOP 522-11-41
- 469** Gibbs, G. P.; Cabell, R. H.; and Juang, J-N.: Experimental Evaluation of Controller Complexity in the Active Control of Turbulent Boundary Layer Induced Sound Radiation From Panels. Presented at 6th AIAA/CEAS Aeroacoustics Conference, June 12-14, 2000, Lahaina, Hawaii. AIAA Paper No. 2000-2043.
Organization RB RTOP 538-03-14
- 470** Hilburger, M. W.; Nemeth, M. P.; and Starnes, J. H., Jr.: Effective Widths of Compression-Loaded Plates With a Cutout. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1658.
Organization RC RTOP 522-11-41
- 471** Hilburger, M. W.; Nemeth, M. P.; and Starnes, J. H., Jr.: Effective Widths of Compression-Loaded Plates With a Cutout. NASA/TP-2000-210538, October 2000, 24 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp210538.pdf>
Organization RC RTOP 522-11-41
- 472** Hilburger, M. W.; and Starnes, J. H., Jr.: Effects of Imperfections on the Buckling Response of Compression-Loaded Composite Shells. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1387.
Organization RC RTOP 522-63-31
- 473** Horner, G. C.; Bromberg, L.; and Teter, J. P.: A Cryogenic Magnetostrictive Actuator Using a Persistent High Temperature Superconducting Magnet, Part 1: Concept and Design. NASA/TM-2000-209139, June 2000, 12 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209139.pdf>
Organization RC RTOP 522-32-41
- 474** Horner, G. C.; Bromberg, L.; and Teter, J. P.: Set and Hold With Power Off Cryogenic Actuators. NASA Tech Brief L-17837, May 2000.
Organization RC

- 475** Horta, L. G.; and Kurtz-Husch, J. D.: Structures and Materials Experimental Facilities and Capabilities Catalog. NASA/TM-2000-210294, June 2000, 188 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210294.pdf>
Organization RC RTOP 522-32-21
- 476** Horta, L. G.; and Kvaternik, R. G.: A Historical Perspective on Dynamics Testing at the Langley Research Center. NASA/TM-2000-210295, May 2000, 25 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210295.pdf>
Organization RC RTOP 522-32-21
- 477** Horta, L. G.; Kvaternik, R. G.; and Hanks, B. R.: A Historical Perspective on Dynamics Testing at the Langley Research Center. Presented at AIAA Dynamics Specialists Conference, April 5-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1739.
Organization RC RTOP 522-32-31
- 478** Jegley, D. C.: Response of Selected Integrally Stiffened Curved Aluminum Panels Subjected to Combined Loads. *Journal of Aircraft*, Volume 37, No. 5, September–October 2000, p. 880-886.
Organization RC RTOP 522-12-61
- 479** Johnson, A. R.: An Energy Based Model of Viscoelastic Shear Deformations in Rubber. Presented at First SIAM Conference on Computational Science and Engineering, September 21-23, 2000, Washington, DC.
Organization RC RTOP 632-05-00
- 480** Johnson, A. R.; and Chen, T-K.: Thermo-Mechanical Analyses of Dynamically Loaded Viscoelastic Rubber Cylinders. Presented at 22nd Army Science Conference, December 12-13, 2000, Baltimore, Maryland.
Organization RC RTOP 632-05-00
- 481** Johnson, A. R.; and Chen, T.: Coupled Thermo-Mechanical Analyses of Dynamically Loaded Rubber Cylinders. Presented at 32nd International SAMPE Technical Conference, November 5-9, 2000, Boston, Massachusetts. In Proceedings.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-32sampe-arj.pdf>
Organization RC RTOP 632-05-00
- 482** Johnson, A. R.; Chen, T.; and Mead, J. L.: Modeling Step-Strain Relaxation and Cyclic Deformations of Elastomers. Presented at 158th Meeting of the American Chemical Society, October 17-20, 2000, Cincinnati, Ohio. In Proceedings.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-158acs-arj.pdf>
Organization RC RTOP 632-05-00
- 483** Juang, J-N.; Chen, Y-C.; and Longman, R. W.: Improved Speech Coding Based on Open-Loop Parameter Estimation. NASA/TM-2000-209845, February 2000, 22 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209845.pdf>
Organization RC RTOP 632-02-00

- 484** Lake, M. S.; and Hachkowski, M. R.: Mechanism Design Principles for Optical-Precision, Deployable Instruments. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1409.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1409.pdf>
Organization RC RTOP 632-10-14
- 485** Librescu, L.; Nemeth, M. P.; Starnes, J. H., Jr.; and Lin, W.: Nonlinear Response of Flat and Curved Panels Subjected to Thermomechanical Loads. *Journal of Thermal Stresses*, Volume 23, No. 6, August 2000, p. 549-582.
Organization RC RTOP 522-11-41
- 486** Lin, C.; and Juang, J-N.: Self-Tuning of Design Variables for Generalized Predictive Control. NASA/TM-2000-210619, December 2000, 26 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210619.pdf>
Organization RC RTOP 632-10-14
- 487** Lin, K. Y.; Du, J.; and Rusk, D.: Structural Design Methodology Based on Concepts of Uncertainty. (NAG1-2055 University of Washington.) NASA/CR-2000-209847, February 2000, 130 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr209847.pdf>
Organization RC RTOP 522-31-71
- 488** Longman, R. W.; Akogyeram, R.; Hutton, A.; and Juang, J-N.: Stability of Matched Basis Function Repetitive Control. Presented at 10th AAS/AIAA Space Flight Mechanics Meeting, January 24-26, 2000, Clearwater, Florida.
Organization RC RTOP 632-62-00
- 489** Lovejoy, A. E.: Finite Element Analysis of a Composite Semi-Span Test Article With and Without Discrete Damage. (NAS1-96014 Analytical Services and Materials, Inc.) NASA/CR-2000-210308, August 2000, 153 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210308.pdf>
Organization RC RTOP 522-83-11
- 490** Lyle, K. H.; and Fasanella, E. L.: Development of an ACAP Helicopter Impact Model. *Journal of the American Helicopter Society*, Volume 45, No. 2, April 2000, p. 137-142.
Organization RC RTOP 522-18-31
- 491** Mahler, M.; Ley, R. P.; Shah, C. H.; Lin, W.; and Rouse, M.: Propagation and Control of Crack-Like Damage in Curved Composite Panels Under Combined Loads. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1534.
Organization RC RTOP 581-10-21

- 492** McGowan, D. M.; Davila, C. G.; and Ambur, D. R.: Damage Progression in Buckle-Resistant Notched Composite Plates Loaded in Uniaxial Compression. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1519.
 Organization RC RTOP 538-13-12
- 493** Mikulas, M. M., Jr.; and Sumpter, R.: A New Merit Function for Evaluating the Flaw Tolerance of Composite Laminates—Part II, Arbitrary Size Holes and Center Cracks. (NAG1-1642 University of Colorado.) NASA/CR-2000-209559, January 2000, 45 p.
 Organization RC RTOP 522-11-41
- 494** Nemeth, M. P.: Buckling Behavior of Long Anisotropic Plates Subjected to Restrained Thermal Expansion and Mechanical Loads. *Journal of Thermal Stresses*, Volume 23, No. 9, December 2000, p. 873-916.
 Organization RC RTOP 522-11-41
- 495** Nemeth, M. P.; and Smeltzer, S. S., III: Bending Boundary Layers in Laminated-Composite Circular Cylindrical Shells. NASA/TP-2000-210549, November 2000, 65 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp210549.pdf>
 Organization RC RTOP 522-63-31
- 496** Nemeth, M. P.; and Smeltzer, S. S., III: Bending Boundary Layers in Laminated-Composite Circular Cylindrical Shells. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1660.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1660.pdf>
 Organization RC RTOP 522-63-31
- 497** Newman, J. C., Jr.; Gates, T. S.; and Piascik, R. S.: Environmental Effects on Composites and Metals—Methodologies for Safe Design and Operation. Presented at Design for Safety Workshop, October 10-12, 2000, Moffett Field, California.
 Organization RC RTOP 522-61-11
- 498** Palm, T.; Mahler, M.; Shah, C. H.; Rouse, M.; Bush, H. G.; Wu, K. C.; and Small, W. S.: BMI Sandwich Wing Box Analysis and Test. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1342.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1342.pdf>
 Organization RC RTOP 581-10-21
- 499** Pappa, R. S.; Doebling, S. W.; and Kholwad, T. D.: On-Line Database of Vibration-Based Damage Detection Experiments. NASA/TM-2000-209840, January 2000, 12 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209840.pdf>
 Organization RC RTOP 706-12-21

- 500** Pappa, R. S.; Doebling, S. W.; and Kholwad, T. D.: On-Line Database of Vibration-Based Damage Detection Experiments. *Sound & Vibration*, Volume 34, No. 1, January 2000, p. 28-33.
Organization RC RTOP 706-12-21
- 501** Pappa, R. S.; Doebling, S. W.; and Kholwad, T. D.: On-Line Database of Vibration-Based Damage Detection Experiments. Presented at 18th International Modal Analysis Conference, February 7-10, 2000, San Antonio, Texas.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209840.pdf>
Organization RC RTOP 632-04-00
- 502** Pappa, R. S.; Giersch, L. R.; and Quagliaroli, J. M.: Photogrammetry of a 5m Inflatable Space Antenna With Consumer Digital Cameras. NASA/TM-2000-210627, December 2000, 16 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210627.pdf>
Organization RC RTOP 632-64-00
- 503** Reaves, M. C.; and Horta, L. G.: Test Cases for Modeling and Validation of Structures With Piezoelectric Actuators. Presented at FEMCI Innovative Solutions to Challenging Problems, May 18, 2000, Greenbelt, Maryland.
Organization RC RTOP 522-32-31
- 504** Rizzi, S. A.; and Muravyov, A.: Comparison of Nonlinear Random Response Using Numerical Integration and Equivalent Linearization. Presented at Seventh International Conference on Recent Advances in Structural Dynamics, July 22-25, 2000, Southampton, England. In Proceedings, Volume 2, p. 833-846.
Organization RB RTOP 522-63-11
- 505** Sergeev, B.; Madenci, E.; and Ambur, D. R.: Influence of Bolt Spacing and Degree of Laminate Anisotropy in Single-Lap Joints. *Computers and Structures*, Volume 76, No. 1-3, 2000, p. 89-103.
Organization RC RTOP 538-13-12
- 506** Silverman, E. M.; Boyd, W. E.; Rhodes, M. D.; and Dyer, J. E.: Composite Isogrid Structures for Parabolic Surfaces. U. S. Patent 6,064,352. Issued May 16, 2000.
Organization RC
- 507** Simitses, G. J.; Starnes, J. H., Jr.; and Rezaeepazhand, J.: Structural Similitude and Scaling Laws for Plates and Shells: A Review. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1383.
Organization RC RTOP 522-63-31
- 508** Starnes, J. H., Jr.; and Hilburger, M. W.: Effects of Imperfections on the Buckling Response of Compression Loaded Composite Shells. Presented at 20th International Congress of Theoretical and Applied Mechanics, August 27–September 2, 2000, Chicago, Illinois.
Organization RC RTOP 522-04-11

- 509** Szewczyk, Z. P.; and Sleight, D. W.: Object-Oriented Approach to Interactive Analysis of Structures. *Advances in Engineering Software*, Volume 31, No. 8/9, August 2000, p. 733-742.
Organization RC RTOP 632-10-14
- 510** Taleghani, B. K.: Validation of High Displacement Piezoelectric Actuator Finite Element Models. Presented at EOS/SPIE Symposium on Applied Photonics, Smart Structures and Materials, May 22-25, 2000, Glasgow, Scotland. SPIE Paper No. 4073-03.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-essapssm-bkt.pdf>
Organization RC RTOP 522-32-31
- 511** Taleghani, B. K.: Validation of High Displacement Piezoelectric Actuator Finite Element Models. NASA/TM-2000-210309, ARL-TR-2253, August 2000, 14 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210309.pdf>
Organization RC RTOP 522-32-31
- 512** Tessler, A.: Comparison of Interdependent Interpolations for Membrane and Bending Kinematics in Shear-Deformable Shell Elements. Presented at International Conference on Computational Engineering and Sciences, August 21-25, 2000, Los Angeles, California.
Organization RC RTOP 509-10-11
- 513** Tessler, A.: A Three-Node Shell Element With Drilling Degrees of Freedom for Thick Laminated Composite and Sandwich Structures. Presented at Fourth International Colloquium on Computation of Shell and Spatial Structures, June 5-7, 2000, Chania-Crete, Greece.
Organization RC RTOP 509-10-11
- 514** Turner, T. L.: Dynamic Response Tuning of Composite Beams by Embedded Shape Memory Alloy Actuators. Presented at SPIE's 7th Annual International Symposium on Smart Structures and Materials, March 5-9, 2000, Newport Beach, California. In Proceedings, Paper No. 3991-47.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-7spie-tlt.pdf>
Organization RB RTOP 537-06-37
- 515** Turner, T. L.: SMA Hybrid Composites for Dynamic Response Abatement Applications. Presented at Seventh International Conference on Recent Advances in Structural Dynamics, July 22-25, 2000, Southampton, England. In Proceedings, Volume 1, p. 453-465.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-7icrasd-tlt.pdf>
Organization RB RTOP 522-32-31
- 516** Woodard, S. E.: The Upper Atmosphere Research Satellite In-Flight Dynamics. *Journal of Spacecraft and Rockets*, Volume 37, No. 6, November-December 2000, p. 794-800.
Organization RC RTOP 632-10-14

- 517** Wu, S-Y.; Turner, T. L.; and Rizzi, S. A.: Piezoelectric Shunt Vibration Damping of an F-15 Panel Under High Acoustic Excitation. Presented at SPIE's 7th Annual International Symposium on Smart Structures and Materials, March 5-9, 2000, Newport Beach, California. In Proceedings, Paper No. 3989-27.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-7spie-syw.pdf>
Organization RB RTOP 537-06-37
- 518** Young, R. D.; Hyer, M. W.; and Starnes, J. H., Jr.: Prebuckling and Postbuckling Response of Tailored Composite Stiffened Panels With Axial-Shear Coupling. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1459.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1459.pdf>
Organization RC RTOP 242-82-76
- 519** Young, R. D.; Rose, C. A.; and Starnes, J. H., Jr.: Nonlinear Bulging Factors for Longitudinal and Circumferential Cracks in Cylindrical Shells Subjected to Combined Loads. Presented at 41st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference and Exhibit, April 3-6, 2000, Atlanta, Georgia. AIAA Paper No. 2000-1514.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1514.pdf>
Organization RC RTOP 522-62-11
- 520** Young, R. D.; Rose, C. A.; and Starnes, J. H., Jr.: The Effect of Stiffeners on Bulging Factors for Longitudinal Cracks in Pressurized Cylindrical Shells. Presented at 4th Joint DOD/FAA/NASA Conference on Aging Aircraft, May 15-18, 2000, St. Louis, Missouri.
Organization RC RTOP 522-62-11

Geosciences

Category 42 Geosciences (General)

- 521** Browell, E. V.; Butler, C. F.; Grant, W. B.; Brackett, V. G.; Kooi, S. A.; Toon, O. B.; Burris, J.; McGee, T. J.; Schoeberl, M. R.; and Mahoney, M. J.: Polar Stratospheric Cloud Characteristics Observed During the SOLVE Campaign. Presented at SOLVE Workshop, September 25-29, 2000, Palermo, Italy.
Organization RE RTOP 291-07-07
- 522** Browell, E. V.; Fenn, M. A.; Butler, C. F.; Grant, W. B.; Ismail, S.; Ferrare, R. A.; *et al.*: Airborne Lidar Measurements of Ozone, Water Vapor, Aerosol, and Clouds Over the Remote Tropical Pacific Ocean. Presented at 20th International Laser Radar Conference, July 10-14, 2000, Vichy, France.
Organization RE RTOP 622-63-13

- 523** Chu, W. P.; Veiga, R. E.; and Cisewski, M.: Limb Scattering Measurements for Ozone Profiling Using the SAGE III Instrument. Presented at SPIE's 45th Annual Meeting—Conference on Optical Systems Contamination and Degradation: Effects, Measurements, and Control, July 30–August 4, 2000, San Diego, California.
Organization RE RTOP 229-10-32
- 524** Crawford, J. H.; *et al.*: Evolution and Chemical Consequences of Lightning Produced NO_x Observed in the North Atlantic Upper Troposphere. *Journal of Geophysical Research*, Volume 105, No. D15, August 16, 2000, p. 19,795-19,809.
Organization RE RTOP 622-61-11
- 525** Crawford, J. H.; Davis, D. D.; Olson, J. R.; and Chen, G.: Lagrangian Study of Ozone Photochemistry in the Equatorial Pacific Marine Boundary Layer. Presented at American Geophysical Union 2000 Spring Meeting, May 30–June 3, 2000, Washington, DC.
Organization RE RTOP 622-61-11
- 526** Fairlie, T. D.; Pierce, R. B.; Al-Saadi, J. A.; Browell, E. V.; and Harvey, V. L.: Analysis of Ozone Changes in the Polar Stratosphere During SOLVE Using DIAL Observations and a Lagrangian “Match” Technique. Presented at SOLVE Workshop, September 25-29, 2000, Palermo, Italy.
Organization RE RTOP 622-57-35
- 527** Grant, W. B.; *et al.*: A Case Study of Transport of Tropical Marine Boundary Layer and Lower Tropospheric Air Masses to the Northern Midlatitude Upper Troposphere. *Journal of Geophysical Research*, Volume 105, No. D3, 2000, p. 3757-3770.
Organization RE RTOP 538-08-17
- 528** Hostetler, C. A.; Hansen, G. M.; Lucker, P. L.; Hunt, W. H.; Lawrence, R. M.; and Osborn, M. T.: Airborne Lidar Observations of PSCs and Stratospheric Aerosols from SOLVE. Presented at 20th International Laser Radar Conference, July 10-14, 2000, Vichy, France.
Organization RE RTOP 291-07-01
- 529** Meredith, B. D.: Advanced Concepts, Technologies, and Flight Experiments for NASA’s Earth Science Enterprise. Presented at AIAA Space 2000 Conference & Exposition, September 19-21, 2000, Long Beach, California. AIAA Paper No. 2000-5177.
Organization OB RTOP 258-80-00
- 530** Scott, A. D., Jr.; Kleb, M. M.; and Raper, J. L., Sr.: Compendium of NASA Data Base for the Global Tropospheric Experiment’s Pacific Exploratory Mission—Tropics B (PEM-Tropics B)—Volume 1: DC-8. NASA/TM-2000-210617/VOL1, December 2000, 290 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210617vol1.pdf>
Organization RE RTOP 622-63-06

- 531** Scott, A. D., Jr.; Kleb, M. M.; and Raper, J. L., Sr.: Compendium of NASA Data Base for the Global Tropospheric Experiment's Pacific Exploratory Mission—Tropics B (PEM-Tropics B)—Volume 2: P-3B. NASA/TM-2000-210617/VOL2, December 2000, 276 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210617vol2.pdf>
Organization RE RTOP 622-63-03
- 532** Vay, S. A.; Anderson, B. E.; Jensen, E. J.; Sachse, G. W.; Ovarlez, J.; Gregory, G. L.; Nolf, S. R.; Podolske, J. R.; Slate, T. A.; and Sorenson, C. E.: Tropospheric Water Vapor Measurements Over the North Atlantic During Subsonic Assessment Ozone and Nitrogen Oxide Experiment. *Journal of Geophysical Research*, Volume 105, No. D3, 2000, p. 3745-3756.
Organization RE RTOP 622-63-14

Category 43 Earth Resources and Remote Sensing

- 533** Alter-Gartenberg, R.; and Nolf, S. R.: Identification of Terrestrial Reflectance From Remote Sensing. (NAS1-20431 Computer Sciences Corporation.) NASA/CR-2000-210116, May 2000, 80 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210116.pdf>
Organization RF RTOP 258-70-21
- 534** Burton, S. P.; and Thomason, L. W.: Polar Mesospheric Clouds in SAGE II Version 6.0 Data. Presented at Quadrennial Ozone Symposium, July 3-8, 2000, Sapporo, Japan.
Organization RE RTOP 621-45-20
- 535** Burton, S. P.; and Thomason, L. W.: Calculation of Air Density From SAGE II Version 6.0 Data. Presented at Quadrennial Ozone Symposium, July 3-8, 2000, Sapporo, Japan.
Organization RE RTOP 621-45-20
- 536** Chiou, E-W.; Thomason, L. W.; and Burton, S. P.: Assessment of the Version 6 SAGE II Water Vapor Data Set. Presented at Quadrennial Ozone Symposium, July 3-8, 2000, Sapporo, Japan.
Organization RE RTOP 621-45-20
- 537** Iyer, N.; Burton, S. P.; Zawodny, J. M.; and Thomason, L. W.: SAGE II Version 6.0 Data Flow and Distribution. Presented at Quadrennial Ozone Symposium, July 3-8, 2000, Sapporo, Japan.
Organization RE RTOP 621-45-20
- 538** Osborn, M. T.; and Thomason, L. W.: Long-Term Stratospheric Aerosol Observations by Ground-Based Lidar and SAGE I/II. Presented at 20th International Laser Radar Conference, July 10-14, 2000, Vichy, France.
Organization RE RTOP 621-45-20

- 539** Thomason, L. W.; and Burton, S. P.: Aerosol Climatological Products in SAGE II Version 6.0. Presented at Quadrennial Ozone Symposium, July 3-8, 2000, Sapporo, Japan.
Organization RE RTOP 621-45-20
- 540** Thomason, L. W.; and Burton, S. P.: Aerosol Variability in the Lower Stratosphere. Presented at American Geophysical Union 2000 Fall Meeting, December 15-19, 2000, San Francisco, California.
Organization RE RTOP 621-45-20
- 541** Thomason, L. W.; and Burton, S. P.: Aerosol Variability in SAGE II Version 6.0. Presented at SPARC 2000 Symposium, November 6-10, 2000, Mar del Plata, Argentina.
Organization RE RTOP 621-45-20
- 542** Thomason, L. W.; Burton, S. P.; and Trepte, C. R.: SAGE II Observations of Tropospheric Aerosol. Presented at NARSTO Technical Conference on Aerosol Science, October 24-26, 2000, Queretaro, Mexico.
Organization RE RTOP 621-45-20
- 543** Thomason, L. W.; Burton, S. P.; Trepte, C. R.; and Zawodny, J. M.: SAGE II Observations of Tropospheric Aerosol. Presented at EOS/SPIE Symposium on Remote Sensing, September 25-29, 2000, Barcelona, Spain.
Organization RE RTOP 621-45-20
- 544** Thomason, L. W.; Burton, S. P.; Zawodny, J. M.; and Iyer, N.: Species Separations and Error Analysis in SAGE II Version 6.0 Data Products. Presented at Quadrennial Ozone Symposium, July 3-8, 2000, Sapporo, Japan.
Organization RE RTOP 621-45-20
- 545** Zawodny, J. M.; and Randel, W. J.: SAGE II Version 6.0 Ozone Trends. Presented at Quadrennial Ozone Symposium, July 3-8, 2000, Sapporo, Japan. In Proceedings, Paper No. 55.
Organization RE RTOP 621-45-20
- 546** Zawodny, J. M.; Thomason, L. W.; Burton, S. P.; and Iyer, N.: SAGE II Version 6.0: Stratospheric Aerosol and Ozone Observations. Presented at EOS/SPIE Symposium on Remote Sensing, September 25-29, 2000, Barcelona, Spain.
Organization RE RTOP 621-45-20
- 547** Zawodny, J. M.; Thomason, L. W.; Iyer, N.; and Burton, S. P.: Version 6.0 Refinements to the SAGE II Atmospheric Transmission Profiles. Presented at Quadrennial Ozone Symposium, July 3-8, 2000, Sapporo, Japan. In Proceedings.
Organization RE RTOP 621-45-20

- 548** Zhou, D. K.; Smith, W. L.; and Larar, A. M.: Temperature and Moisture Retrieval Algorithm Development for NAST Interferometer. Presented at International Radiation Symposium 2000, July 24-29, 2000, St. Petersburg, Russia.
Organization RE RTOP 622-96-00

Category 44 Energy Production and Conversion

- 549** Neil, D. O.; Gordley, L. L.; Marshall, B. T.; and Sachse, G. W.: Tropospheric Carbon Monoxide Measurements from Geostationary Orbit. Presented at EOS/SPIE Symposium on Remote Sensing, September 25-29, 2000, Barcelona, Spain.
Organization RE RTOP 258-30-00

Category 45 Environment Pollution

- 550** Delnore, V. E.; Cox, S. K.; and Curran, R. J.: CRYSTAL—The Cirrus Regional Study of Tropical Anvils and Layers. Presented at International Radiation Symposium 2000, July 24-29, 2000, St. Petersburg, Russia.
Organization RE RTOP 622-96-00

- 551** Vay, S. A.; Anderson, B. E.; Sachse, G. W.; Avery, M. A.; Weinheimer, A. J.; Mahoney, M. J.; and Sorenson, C. E.: Tracer Correlations and Ozone Depletion in the Arctic Lower Stratosphere as Observed During Recent DC-8 Expeditions. Presented at SOLVE Workshop, September 25-29, 2000, Palermo, Italy.
Organization RE RTOP 622-63-17

Category 46 Geophysics

- 552** Al-Saadi, J. A.; Pierce, R. B.; Grose, W. L.; Fairlie, T. D.; and Natarajan, M.: Multi-Annual Simulations During the UARS Period With a 3D Coupled General Circulation and Chemistry Model. Presented at SPARC 2000, November 6-10, 2000, Mar del Plata, Argentina.
Organization RE RTOP 291-01-61

- 553** Bhatt, P. P.; Remsberg, E. E.; and Deaver, L. E.: Trend Estimation for UARS HALOE Temperatures. Presented at American Geophysical Union 2000 Spring Meeting, May 30–June 3, 2000, Washington, DC.
Organization RE RTOP 621-25-05

- 554** Brinksma, E. J.; Bergwerff, J. B.; Bodeker, G. E.; Boersma, K. F.; Boyd, I. S.; Conner, B. J.; de Haan, J. F.; Hogervorst, W.; Hovenier, J. W.; Parrish, A.; Tsou, J. J.; Zawodny, J. M.; and Swart, D. P.: Validation of Three Years of Ozone Measurements Over NDSC-Station Lauder, New Zealand. *Journal of Geophysical Research*, Volume 105, No. D13, July 16, 2000, p. 17,291-17,306.
Organization RE RTOP 621-45-20

- 555** Browell, E. V.; Brackett, V. G.; Butler, C. F.; Fenn, M. A.; and Grant, W. B.: Large-Scale Ozone and Aerosol Distributions Observed With Airborne Lidar Over the Tropical Pacific During PEM Tropics A & B. Presented at Quadrennial Ozone Symposium, July 3-8, 2000, Sapporo, Japan.
Organization RE RTOP 622-63-13
- 556** Browell, E. V.; Butler, C. F.; Grant, W. B.; Brackett, V. G.; Kooi, S. A.; Ismail, S.; Ferrare, R. A.; Clayton, M. B.; Toon, O. B.; Burris, J.; McGee, T. J.; Schoeberl, M. R.; and Mahoney, M. J.: Polar Stratospheric Cloud Types, Distributions, Optical Characteristics, and Correlations With Temperatures and Gravity Waves During the SOLVE Campaign. Presented at American Geophysical Union 2000 Fall Meeting, December 15-19, 2000, San Francisco, California.
Organization RE RTOP 622-65-34
- 557** Callis, L. B., Jr.; Natarajan, M.; and Lambeth, J. D.: Calculated Upper Stratospheric Effects of Solar UV Flux and NO_y Variations During the 11-Year Solar Cycle. *Geophysical Research Letters*, Volume 27, No. 23, December 1, 2000, p. 3869-3872.
Organization RE RTOP 370-21-08
- 558** Callis, L. B., Jr.; Natarajan, M.; and Lambeth, J. D.: Solar-Terrestrial Connections: The Relative Importance of Electron Precipitation and Solar UV Variations. Presented at American Geophysical Union 2000 Fall Meeting, December 15-19, 2000, San Francisco, California.
Organization RE RTOP 370-21-08
- 559** Cunnold, D. M.; Newchurch, M. J.; Flynn, L. E.; Wang, H. J.; Russell, J. M., III; McPeters, R. D.; Zawodny, J. M.; and Froidevaux, L.: Uncertainties in Upper Stratospheric Ozone Trends From 1979-1996. *Journal of Geophysical Research*, Volume 105, No. D4, 2000, p. 4427-4444.
Organization RE RTOP 621-45-20
- 560** Grant, W. B.; Browell, E. V.; and Butler, C. F.: Airborne UV DIAL Ozone Measurements in the Arctic Stratosphere During SOLVE in the Winter 1999/2000: Initial Results. Presented at 20th International Laser Radar Conference, July 10-14, 2000, Vichy, France.
Organization RE RTOP 622-63-13
- 561** Grant, W. B.; Browell, E. V.; Butler, C. F.; Gibson, S. C.; and Kooi, S. A.: Evolution of the Arctic Polar Vortex Stratosphere Ozone During SOLVE Measured Using the Airborne UV DIAL System. Presented at SOLVE Workshop, September 25-29, 2000, Palermo, Italy.
Organization RE RTOP 622-65-34
- 562** Hair, J. W.; Browell, E. V.; Grant, W. B.; De Young, R. J.; Butler, C. F.; Notari, A.; Heilman, L. A.; and Harper, D. B.: Airborne UV DIAL Measurements of Ozone and Aerosols During the TOSPE Field Experiment. Presented at 20th International Laser Radar Conference, July 10-14, 2000, Vichy, France.
Organization RE RTOP 622-63-13

- 563** Hauglustaine, D. A.; Brasseur, G. P.; and Levine, J. S.: A Sensitivity Simulation of Tropospheric Ozone Changes Due to the 1997 Indonesian Fire Emissions. *Geophysical Research Letters*, Volume 26, No. 21, November 1, 1999, p. 305-308.
Organization RE RTOP 274-00-00
- 564** Hauglustaine, D. A.; Brasseur, G. P.; and Levine, J. S.: Impact of the 1997 Indonesian Fires on Tropospheric Ozone and Its Precursors. In *Biomass Burning and Its Inter-Relationships With the Climate System*, J. L. Innes, M. Beniston, M. Verstraete, eds., Kluwer Academic Publishers, 2000, p. 87-99.
Organization RE RTOP 274-00-00
- 565** Ismail, S.; Browell, E. V.; Ferrare, R. A.; Kooi, S. A.; and Heilman, L. A.: LASE Measurements of Mountain Waves, Polar Stratospheric Clouds, and Stratospheric-Tropospheric Exchange During SOLVE. Presented at American Geophysical Union 2000 Fall Meeting, December 15-19, 2000, San Francisco, California.
Organization RE RTOP 622-65-34
- 566** Levine, J. S.: Gaseous and Particulate Emissions Released to the Atmosphere From Vegetation Fires. In *Health Guidelines for Vegetation Fire Events*, Kee-Tai Goh, Dietrich Schwela, Johann G. Goldammer, Orman Simpson. eds., UNEP, WHO, WWO, IEE, 2000, p. 284-298.
Organization RE RTOP 274-00-00
- 567** Levine, J. S.: Global Biomass Burning: A Case Study of the Gaseous and Particulate Emissions Released to the Atmosphere During the 1997 Fires in Kalimantan and Sumatra, Indonesia. In *Biomass Burning and Its Inter-Relationships With the Climate System*, Volume 3, J.L. Innes, M. Beniston, M. Verstraete, eds., Kluwer Academic Publishers, Dordrecht, 2000, p. 15-31.
Organization RE RTOP 274-00-99
- 568** Levine, J. S.; and Cofer, W. R., III: Boreal Forest Fire Emissions and the Chemistry of the Atmosphere. In *Fire, Climate Change, and Carbon Cycling in the Boreal Forests*, E.S. Kasischke, B. J. Stocks, eds., Springer-Verlag Publishers, 2000, p. 31-48.
Organization RE RTOP 274-00-00
- 569** Levine, J. S.; Cofer, W. R., III; Cahoon, D. R., Jr.; Winstead, E. L.; Stocks, B. J.; Krasovic, V. A.; and Mtetwa, L.: Gaseous and Particulate Emissions From Burning in the Boreal Forest. In *Disturbance in Boreal Forest Ecosystems: Human Impacts and Natural Processes*, S. G. Conard, ed., United States Department of Agriculture, 2000, p. 164-174.
Organization RE RTOP 274-00-00
- 570** Levine, J. S.; Cofer, W. R., III; and Pinto, J. P.: Biomass Burning. In *Atmospheric Methane: Its Role in the Global Environment*, M. A. K. Khalil, ed., Springer-Verlag, 2000, p. 190-201.
Organization RE RTOP 247-00-00

- 571** Lu, C-H.; Yue, G. K.; Manney, G. L.; Jager, H.; and Mohnen, V. A.: Lagrangian Approach for Stratospheric Aerosol and Gas Experiment (SAGE) II Profile Intercomparisons. *Journal of Geophysical Research*, Volume 105, No. D4, February 27, 2000, p. 4563-4572.
Organization RE RTOP 621-45-87
- 572** Mills, F. P.; Sander, S. P.; Cageao, R. P.; Nemtchinov, V.; Jiang, Y.; Russell, J. M., III; Remsberg, E. E.; LeBlanc, T.; Nedoluha, G.; Allen, M.; and Yung, Y. L.: Intercomparisons of OH Column Measurements From the JPL Table Mountain Facility With Measurements of O₃ and H₂O. Presented at American Geophysical Union 2000 Fall Meeting, December 15-19, 2000, San Francisco, California.
Organization RE RTOP 621-25-05
- 573** Mlynczak, M. G.; Garcia, R. R.; Roble, R. G.; and Hagan, M.: Solar Energy Deposition Rates in the Mesosphere Derived From Airglow Measurements: Implications for the Ozone Model Deficit Problem. *Journal of Geophysical Research*, Volume 105, No. D13, July 16, 2000, p. 17,527-17,538.
Organization RE RTOP 344-16-50
- 574** Natarajan, M.; Remsberg, E. E.; and Gordley, L. L.: Examination of the Stratospheric Ozone Budget Using Reprocessed LIMS Data. Presented at American Geophysical Union 2000 Spring Meeting, May 30-June 3, 2000, Washington, DC.
Organization RE RTOP 621-25-05
- 575** Notholt, J.; Toon, G. C.; Sen, B.; Jones, N. B.; Rinsland, C. P.; Rex, M.; and Lehmann, R.: Latitudinal Variations of Trace Gas Concentrations Measured by Solar Absorption Spectroscopy During a Ship Cruise. *Journal of Geophysical Research*, Volume 105, No. D1, 2000, p. 1337-1349.
Organization RE RTOP 622-56-37
- 576** Pierce, R. B.; Al-Saadi, J. A.; Eckman, R. S.; Fairlie, T. D.; Grose, W. L.; Kleb, M. M.; Natarajan, M.; and Olson, J. R.: Dynamical Climatology of the LaRC Interactive Modeling Project for Atmospheric Chemistry and Transport (IMPACT) Model. *Journal of Geophysical Research*, Volume 105, No. D23, December 16, 2000, p. 29,109-29,134.
Organization RE RTOP 291-01-61
- 577** Remsberg, E. E.; Bhatt, P. P.; and Deaver, L. E.: Ozone Changes in the Lower Stratosphere From 1991 Through 1999. Presented at American Geophysical Union 2000 Spring Meeting, May 30-June 3, 2000, Washington, DC.
Organization RE RTOP 621-25-05
- 578** Rinsland, C. P.; Goldman, A.; Connor, B. J.; Stephen, T. M.; Jones, N. B.; Wood, S. W.; Murcray, F. J.; David, S. J.; Blatherwick, R. S.; Zander, R.; Mahieu, E.; and Demoulin, P.: Correlation Relationships of Stratospheric Molecular Constituents From High Spectral Resolution, Ground-Based Infrared Solar Absorption Spectra. *Journal of Geophysical Research*, Volume 105, No. D11, June 16, 2000, p. 14,637-14,652.
Organization RE RTOP 622-68-51

- 579** Van Valkenburg, R. L.; Rault, D. F.; and Trepte, C. R.: Simulation of the Effects of Atmospheric Inhomogeneities on SAGE III Data Products. Presented at American Geophysical Union 2000 Fall Meeting, December 15-19, 2000, San Francisco, California.
 Organization RE RTOP 229-10-32
- 580** Wang, P-H.; Kent, G. S.; Powell, K. A.; Yue, G. K.; Poole, L. R.; and McCormick, M. P.: Properties of the 1979 SAM II Antarctic 1.0-vm Extinction Coefficients: Implications of the Dehydration and Seasonal Evolution of the Antarctic Polar Vortex. *Journal of Geophysical Research*, Volume 105, No. D7, April 16, 2000, p. 9407-9420.
 Organization RE RTOP 621-45-20
- 581** Woods, D. C.; and Osborn, M. T.: Long-Term Observations of the Mid-Latitude Stratospheric Aerosol by the Langley 48-Inch Lidar. Presented at 80th American Meteorological Society Annual Meeting, January 9-14, 2000, Long Beach, California.
 Organization RE RTOP 621-45-20
- 582** Yue, G. K.: A Global Climatology of Effective Radius Retrieved From Stratospheric Aerosol and Gas Experiment II. Presented at American Geophysical Union 2000 Fall Meeting, December 15-19, 2000, San Francisco, California.
 Organization RE RTOP 621-45-87
- 583** Yue, G. K.: Retrieval of Stratospheric Aerosol Size Distributions and Integral Properties From Simulated Lidar Backscatter Measurements. *Applied Optics*, Volume 39, No. 30, October 20, 2000, p. 5446-5455.
 Organization RE RTOP 621-45-87
- 584** Yue, G. K.; Wang, P-H.; Weisenstein, D. K.; and Ko, M. K.: Satellite Observations of Aerosol Surface Area and Volume Densities at Upper Troposphere and Lower Stratosphere From 1985 to 1999. Presented at International Radiation Symposium 2000, July 24-29, 2000, St. Petersburg, Russia.
 Organization RE RTOP 621-45-87
- 585** Zhou, D. K.; Smith, W. L.; and Larar, A. M.: Tropospheric Ozone Near-Nadir-Viewing IR Spectral Sensitivity and Ozone Measurements from NAST-I. Presented at SPIE's 2nd International Asia-Pacific Symposium on Remote Sensing of the Atmosphere, Environment, and Space, October 9-12, 2000, Sendai, Japan. In Proceedings SPIE 4151, Paper No. 46.
 Organization RE RTOP 146-96-00

Category 47 Meteorology and Climatology

- 586** Al-Hajjah, A.; Priestley, K. J.; Thomas, S.; Lee, R. B., III; Barkstrom, B. R.; Paden, J.; Pandey, D. K.; and Wilson, R. S.: The Clouds and the Earth's Radiant Energy System (CERES) Spectral Response Characterizations. Presented at SPIE's 45th Annual Meeting—Conference on Optical Systems Contamination and Degradation: Effects, Measurements, and Control, July 30–August 4, 2000, San Diego, California.
 Organization RE RTOP 229-01-02

- 587** Albrecht, B. A.; Rifkin, H.; Fairall, C. W.; Bond, N. A.; and Minnis, P.: Atmospheric Boundary Layer Structures Over the Eastern Equatorial Pacific—Mean States and Transformations. Presented at US CLIVAR Pan American PI Meeting, September 6-8, 2000, Potomac, Maryland.
Organization RE RTOP 622-96-00
- 588** Avery, M. A.; Westberg, D. J.; Newell, R. E.; Fuelberg, H. E.; Anderson, B. E.; Barrick, J. D.; Vay, S. A.; Sachse, G. W.; and Gregory, G. L.: A Comparison of Altitude-Dependent Chemical Tracer Transport Across Persistent Tropical Convective Zones During PEM Tropics Missions A and B. Presented at American Geophysical Union 2000 Spring Meeting, May 30–June 3, 2000, Washington, DC.
Organization RE RTOP 622-63-08
- 589** Barkstrom, B. R.; and Wielicki, B. A.: An Overview of CERES with TRMM and Terra. Presented at IEEE International Geoscience and Remote Sensing Symposium 2000, July 24-28, 2000, Honolulu, Hawaii.
Organization RE RTOP 229-01-02
- 590** Barkstrom, B. R.; Wielicki, B. A.; Smith, G. L.; Lee, R. B., III; Priestley, K. J.; Charlock, T. P.; and Kratz, D. P.: Validation of CERES/TERRA Data. Presented at EOS/SPIE Symposium on Remote Sensing, September 25-29, 2000, Barcelona, Spain.
Organization RE RTOP 229-01-02
- 591** Baum, B. A.; Kratz, D. P.; Yang, P.; Ou, S. C.; Hu, Y-X.; Soulen, P. F.; and Tsay, S-C.: Remote Sensing of Cloud Properties Using MODIS Airborne Simulator Imagery During Success. I. Data and Models. *Journal of Geophysical Research*, Volume 105, No. D9, May 16, 2000, p. 11,767-11,780.
Organization RE RTOP 229-01-04
- 592** Baum, B. A.; Nasiri, S. L.; and Yang, P.: Daytime Overlapping Cloud Detection. Presented at Atmospheric Radiation Measurement (ARM) Science Team Meeting, March 12-17, 2000, San Antonio, Texas.
Organization RE RTOP 229-01-04
- 593** Baum, B. A.; Soulen, P. F.; Strabala, K. I.; King, M. D.; Ackerman, S. A.; and Menzel, W. P.: Remote Sensing of Cloud Properties Using MODIS Airborne Simulator Imagery During SUCCESS. II. Cloud Thermodynamic Phase. *Journal of Geophysical Research*, Volume 105, No. D9, May 16, 2000, p. 11,781-11,792.
Organization RE RTOP 229-01-04
- 594** Baum, B. A.; and Spinhirne, J. D.: Remote Sensing of Cloud Properties Using MODIS Airborne Simulator Imagery During SUCCESS. III. Cloud Overlap. *Journal of Geophysical Research*, Volume 105, No. D9, May 16, 2000, p. 11,793-11,804.
Organization RE RTOP 229-01-04

- 595** Bess, T. D.; Carlson, A. B.; Mackey, C. E.; Denn, F. M.; Wilber, A. C.; and Ritchey, N.: World Wide Web Access to Radiation Datasets for Environmental and Climate Change Studies. *Bulletin of the American Meteorological Society*, Volume 81, No. 11, November 2000, p. 2645-2652.
- Organization RE RTOP 229-01-02
- 596** Browell, E. V.; Ismail, S.; and Ferrare, R. A.: Hurricane Water Vapor, Aerosol, and Cloud Distributions Determined From Airborne Lidar Measurements. Presented at Lidar Atmospheric Monitoring Symposium, January 9-14, 2000, Long Beach, California.
- Organization RE RTOP 622-29-26
- 597** Chakrapani, V.; Minnis, P.; Doelling, D. R.; Spangenberg, D. A.; Arduini, R. F.; Palikonda, R.; Nguyen, L.; Uttal, T.; and Shupe, M.: AVHRR-Derived Cloud Coverage Over the ARM NSA and SHEBA Site During FIRE ACE. Presented at 10th Atmospheric Radiation Measurement Science Team Meeting, March 13-17, 2000, San Antonio, Texas.
- Organization RE RTOP 622-43-31
- 598** Chambers, L. H.; Costulis, P. K.; Young, D. F.; Green, C. J.; Stoddard, D. B.; and Haberer, S. J.: What is Success? Evaluating S'COOL, an Educational Outreach Project Focused on NASA's CERES Program. Proceedings of American Geophysical Union 2000 Fall Meeting, December 15-19, 2000, San Francisco, California. In EOS Transactions, Volume 81 No. 48, Paper No. ED12A-03.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-agufm-lhc.pdf>
- Organization RE RTOP 229-01-02
- 599** Chambers, L. H.; and McFarlane, S.: Non Plane-Parallel Clouds: Statistics From the Atmospheric Radiation Measurement (ARM) Program. Presented at Gordon Research Conference on Solar Radiation and Climate, June 24-29, 2000, New London, Connecticut.
- Organization RE RTOP 229-01-02
- 600** Chambers, L. H.; Young, D. F.; Green, C. J.; Haberer, S. J.; and Racel, A. M.: The CERES S'COOL Project: Two Years After First Launch. Presented at Ninth Symposium on Education, January 9-14, 2000, Long Beach, California. In Proceedings, p. 111-114.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-9soe-lhc.pdf>
- Organization RE RTOP 229-01-02
- 601** Chapman, J. J.: CERES Aqua Instrument Simulator for Command and Upload Validation. Presented at EOS/SPIE Symposium on Remote Sensing, September 25-29, 2000, Barcelona, Spain.
- Organization RE RTOP 229-01-72
- 602** Charlock, T. P.; Rose, F. G.; Rutan, D.; and Fu, Q.: Retrievals of the Surface and Atmospheric Radiation Budget for January 1998: (a) Validation With Collocated Observations and (b) Some Insights on Low Latitude Atmospheric Energetics and Circulation. Presented at International Radiation Symposium 2000, July 24-29, 2000, St. Petersburg, Russia.
- Organization RE RTOP 229-01-02

- 603** Curry, J. A.; *et al.*: FIRE Arctic Clouds Experiment. *Bulletin of the American Meteorological Society*, Volume 81, No. 1, January 2000, p. 5-29.
Organization RE RTOP 622-43-31
- 604** Doelling, D. R.; Spangenberg, D. A.; Chakrapani, V.; Mahesh, A.; Minnis, P.; Uttal, T.; Valero, F. P.; and Pope, S. K.: Cloud Radiative Forcing Over SHEBA and ARM NSA During FIRE-ACE From AVHRR. Presented at International Radiation Symposium 2000, July 24-29, 2000, St. Petersburg, Russia.
Organization RE RTOP 622-96-00
- 605** Dong, X.; Mace, G. G.; Minnis, P.; and Young, D. F.: Arctic Stratus Cloud Properties and Their Effect on the Surface Radiation Budget: Selected Cases From FIRE ACE. Presented at FIRE/SHEBA Workshop, April 17-20, 2000, Boulder, Colorado.
Organization RE RTOP 622-43-31
- 606** Dong, X.; Mace, G. G.; Minnis, P.; and Young, D. F.: Arctic Stratus Cloud Properties and Their Effect on the Surface Radiation Budget: Selected Cases From FIRE ACE. Presented at 10th Atmospheric Radiation Measurement Science Team Meeting, March 13-17, 2000, San Antonio, Texas.
Organization RE RTOP 622-43-31
- 607** Dong, X.; Minnis, P.; Ackerman, T. P.; Clothiaux, E.; Mace, G. G.; Long, C. N.; and Liljegren, J. C.: A 25-Month Database of Stratus Cloud Properties Generated From Ground-Based Measurements at the Atmospheric Radiation Measurement Southern Great Plains Site. *Journal of Geophysical Research*, Volume 105, No. D4, 2000, p. 4529-4538.
Organization RE RTOP 146-90-04
- 608** Dong, X.; Minnis, P.; Mace, G. G.; Sun-Mack, S.; Clothiaux, E.; and Long, C. N.: Validation of CERES/VIRS Cloud Property Retrievals Using Ground-Based Measurements Obtained at the DOE ARM Sites. Presented at 10th Atmospheric Radiation Measurement Science Team Meeting, March 13-17, 2000, San Antonio, Texas.
Organization RE RTOP 622-43-31
- 609** Duda, D. P.; and Minnis, P.: A Study of Skin Temperature/Cloud Shadowing Relationships at the ARM SGP Site. Presented at 10th Atmospheric Radiation Measurement Science Team Meeting, March 13-17, 2000, San Antonio, Texas.
Organization RE RTOP 622-96-00
- 610** Duda, D. P.; and Minnis, P.: Radiative Forcing by Contrail-Generated Cirrus Clouds Derived From Geostationary Satellite Data. Presented at EUMETSAT Meteorological Satellite Data User's Conference 2000, May 29–June 2, 2000, Bologna, Italy. In Proceedings.
Organization RE RTOP 538-08-14
- 611** Evans, K. F.; and Chambers, L. H.: SHDOM. Presented at International Workshop on Intercomparison of 3D Radiation Codes, November 17-19, 2000, Tucson, Arizona.
Organization RE RTOP 229-01-02

- 612** Ferrare, R. A.; *et al.*: Comparison of Aerosol Optical Properties and Water Vapor Among Ground and Airborne Lidars and Sun Photometers During TARFOX. *Journal of Geophysical Research*, Volume 105, No. D8, April 27, 2000, p. 9917-9933.
Organization RE RTOP 622-29-26
- 613** Ferrare, R. A.; Browell, E. V.; Ismail, S.; *et al.*: Lidar Measurements of Relative Humidity and Ice Supersaturation in the Upper Troposphere. Presented at 20th International Laser Radar Conference, July 10-14, 2000, Vichy, France.
Organization RE RTOP 622-29-26
- 614** Ferrare, R. A.; Ismail, S.; Browell, E. V.; Brackett, V. G.; Kooi, S. A.; Clayton, M. B.; Hobbs, P. V.; Hartley, S.; Veefkind, J. P.; Russell, P. B.; Livingston, J.; Tanre, D.; and Hignett, P.: Comparisons of LASE, Aircraft, and Satellite Measurements of Aerosol Optical Properties and Water Vapor During TARFOX. *Journal of Geophysical Research*, Volume 105, No. D8, April 27, 2000, p. 9935-9948.
Organization RE RTOP 622-29-26
- 615** Ferrare, R. A.; Ismail, S.; Browell, E. V.; Kooi, S. A.; Heilman, L. A.; Clayton, M. B.; Brackett, V. G.; Barrick, J. D.; Sachse, G. W.; Mahoney, M. J.; Herman, R.; Bevilacqua, R. M.; and Podolske, J. R.: LASE Measurements of Water Vapor and Relative Humidity During SOLVE. Presented at American Geophysical Union 2000 Fall Meeting, December 15-19, 2000, San Francisco, California.
Organization RE RTOP 622-65-34
- 616** Ferrare, R. A.; Turner, D. D.; Heilman, L. A.; Feltz, W. F.; Peppler, R. A.; Tooman, T. P.; and Halthore, R.: Raman Lidar Profiling of Water Vapor and Aerosols Over the ARM SGP Site. Presented at Symposium on Lidar Atmospheric Monitoring, January 10-12, 2000, Long Beach, California.
Organization RE RTOP 146-90-04
- 617** Green, C. J.; and Chambers, L. H.: NASA and Students Work Together for Mutual Benefit and Research. Presented at International Astronautical Federation Symposium, April 3-5, 2000, Alsace, France. In Proceedings, Paper No. S3-1.
Organization RE RTOP 229-01-02
- 618** Green, C. J.; and Chambers, L. H.: NASA's S'COOL Provides the Teachable Moment for the New Millennium's Wide Range of Learners. Presented at IEEE International Geoscience and Remote Sensing Symposium 2000, July 24-28, 2000, Honolulu, Hawaii.
Organization RE RTOP 229-01-02
- 619** Heck, P. W.; Smith, W. L., Jr.; Kawamoto, K.; Minnis, P.; Young, D. F.; Sun-Mack, S.; Arduini, R. F.; and Dong, X.: An Improved Satellite Retrieval Algorithm for Operational Nighttime Cloud Analysis. Presented at International Radiation Symposium 2000, July 24-29, 2000, St. Petersburg, Russia.
Organization RE RTOP 622-43-31

- 620** Hostetler, C. A.; Lucker, P. L.; Osborn, M. T.; Burris, J.; and McGee, T. J.: Observations of PSCs and Stratospheric Aerosols From the LaRC Aerosol Lidar. Presented at SOLVE THESEO 2000 Science Team Meeting, September 25-29, 2000, Palermo, Italy.
Organization RE RTOP 291-02-01
- 621** Ismail, S.; Browell, E. V.; Ferrare, R. A.; Kooi, S. A.; Clayton, M. B.; Brackett, V. G.; Edwards, W. C.; and Schmidlin, F. J.: LASE Measurements During CAMEX-3 to Characterize the Hurricane Environment. Presented at 20th International Laser Radar Conference, July 10-14, 2000, Vichy, France. In Proceedings, Paper No. TSD/P5.
Organization RE RTOP 469-80-39
- 622** Ismail, S.; Browell, E. V.; Ferrare, R. A.; Kooi, S. A.; Clayton, M. B.; Brackett, V. G.; and Russell, P. B.: LASE Measurements of Aerosol and Water Vapor Profiles During TARFOX. *Journal of Geophysical Research*, Volume 105, No. D8, April 27, 2000, p. 9903-9916.
Organization RE RTOP 622-63-13
- 623** Ismail, S.; Ferrare, R. A.; Browell, E. V.; Mahoney, M. J.; Kooi, S. A.; Heilman, L. A.; Clayton, M. B.; Brackett, V. G.; Bevilacqua, R. M.; Barrick, J. D.; and Sachse, G. W.: LASE Measurements of Water Vapor, Aerosols, and Clouds During SOLVE. Presented at SOLVE Workshop, September 25-29, 2000, Palermo, Italy.
Organization RE RTOP 622-65-34
- 624** Khaiyer, M. M.; Smith, W. L., Jr.; Doelling, D. R.; and Minnis, P.: Comparison of Satellite Derived Cloud and Radiation Properties With Ship and Surface Observations During Nauru-99. Presented at 10th Atmospheric Radiation Measurement Science Team Meeting, March 13-17, 2000, San Antonio, Texas.
Organization RE RTOP 622-43-31
- 625** Larar, A. M.; Smith, W. L.; Zhou, D. K.; Ferrare, R. A.; Browell, E. V.; Knuteson, R.; Feltz, W. F.; Revercomb, H.; Whiteman, D. N.; Turner, D.; Schmidlin, F. J.; and Mango, S.: NAST-I: Spectral Radiance Validation Studies Using Aircraft and Ground-Based Sensing Systems. Presented at Fifth Workshop on Infrared Emission Measurements by FTIR, February 9-11, 2000, Quebec, Canada.
Organization RE RTOP 622-96-00
- 626** Lee, R. B., III: Characterizations of Lunar Irradiances Using Spacecraft Sensors. Presented at 72nd National Technical Association Conference, October 18-21, 2000, Hampton, Virginia.
Organization RE RTOP 229-01-02
- 627** Lee, R. B., III; Priestley, K. J.; Barkstrom, B. R.; Thomas, S.; Al-Hajjah, A.; Paden, J.; Pandey, D. K.; Wilson, R. S.; and Smith, G. L.: Terra Spacecraft CERES Flight Model 1 and 2 Sensor Measurement Precisions: Ground to Flight Determinations. Presented at SPIE's 45th Annual Meeting—Conference on Optical Systems Contamination and Degradation: Effects, Measurements, and Control, July 30–August 4, 2000, San Diego, California.
Organization RE RTOP 229-01-02

- 628** Lee, R. B., III; Priestley, K. J.; Wilson, R. S.; Al-Hajjah, A.; Paden, J.; Pandey, D. K.; and Thomas, S.: Long-Term Total Solar Irradiance (TSI) Variability Based Upon 1980-2000, Spacecraft Measurements. Presented at International Radiation Symposium 2000, July 24-29, 2000, St. Petersburg, Russia.
Organization RE RTOP 229-01-02
- 629** Lee, R. B., III; Smith, G. L.; Spence, P. L.; Walikainen, D. R.; Paden, J.; and Priestley, K. J.: Broadband Measurements of Lunar Radiances Using the Tropical Rainfall Measuring Mission (TRMM) Spacecraft/Clouds and the Earth's Radiant Energy System (CERES) Sensors. Presented at EOS/SPIE Symposium on Remote Sensing, September 25-29, 2000, Barcelona, Spain.
Organization RE RTOP 229-01-02
- 630** Lee, R. B., III; Wilson, R. S.; Priestley, K. J.; Thomas, S.; Paden, J.; Pandey, D. K.; and Al-Hajjah, A.: Long-Term Total Solar Irradiance (TSI) Variability Derived From Earth Radiation Budget Satellite (ERBS) Measurements. Presented at 5th Pacific Ocean Remote Sensing Conference, December 5-8, 2000, Panaji, Goa, India. In Proceedings, Volume 1, p. 383-388.
Organization RE RTOP 229-01-02
- 631** Lin, B.; and Minnis, P.: Temporal Variations of Land Surface Microwave Emissivities Over the ARM Southern Great Plains Site. *Journal of Applied Meteorology*, Volume 39, No. 7, July 2000, p. 1103-1116.
Organization RE RTOP 146-90-04
- 632** Lin, B.; and Minnis, P.: Variations of Land Surface Microwave Emissivities Over the ARM Southern Great Plains Site. Presented at 10th Atmospheric Radiation Measurement Science Team Meeting, March 13-17, 2000, San Antonio, Texas.
Organization RE RTOP 622-43-31
- 633** Lin, B.; Minnis, P.; Wielicki, B. A.; Hu, Y-X.; and Ho, S-P.: Overcast Clouds Determined by TRMM Measurements. Presented at International Radiation Symposium 2000, July 24-29, 2000, St. Petersburg, Russia. In Proceedings.
Organization RE RTOP 229-01-02
- 634** Mahesh, A.; Spangenberg, D. A.; and Minnis, P.: Night-Time Cloud Detection in the Arctic From AVHRR Data. Presented at FIRE/SHEBA Workshop, April 17-20, 2000, Boulder, Colorado.
Organization RE RTOP 622-43-31
- 635** Mannstein, H.; Meyer, R.; Minnis, P.; and Palikonda, R.: Regional Contrail Coverage Estimated From AVHRR Data. Presented at EUMETSAT Meteorological Satellite Data User's Conference 2000, May 29–June 2, 2000, Bologna, Italy. In Proceedings.
Organization RE RTOP 538-08-14

- 636** Minnis, P.; Doelling, D. R.; Khaiyer, M. M.; and Cahoon, D. R., Jr.: Surface Reflectance Anisotropy Over the ARM SGP and the Diurnal Variation of Surface Spectral Characteristics. Presented at 10th Atmospheric Radiation Measurement Science Team Meeting, March 13-17, 2000, San Antonio, Texas.
Organization RE RTOP 622-43-31
- 637** Minnis, P.; Doelling, D. R.; Spangenberg, D. A.; Mahesh, A.; Pope, S. K.; and Valero, F. P.: AVHRR-Derived Cloud Radiative Forcing Over the ARM NSA and SHEBA Site During FIRE ACE. Presented at 10th Atmospheric Radiation Measurement Science Team Meeting, March 13-17, 2000, San Antonio, Texas.
Organization RE RTOP 622-43-31
- 638** Minnis, P.; and Khaiyer, M. M.: Anisotropy of Land Surface Skin Temperature Derived From Satellite Data. *Journal of Applied Meteorology*, Volume 39, No. 7, July 2000, p. 1117-1129.
Organization RE RTOP 622-43-31
- 639** Minnis, P.; Nguyen, L.; Young, D. F.; Ayers, J. K.; Doelling, D. R.; and Chakrapani, V.: Intercalibration of Operational and Research Meteorological Satellite Imagers. Presented at 33rd COSPAR Scientific Assembly, July 16-23, 2000, Warsaw, Poland.
Organization RE RTOP 229-01-02
- 640** Minnis, P.; Palikonda, R.; Ayers, J. K.; Duda, D. P.; and Costulis, P. K.: Cirrus, Contrails, and Radiative Forcing Over the USA: Their Relationships to Air Traffic and Upper Tropospheric Conditions. Presented at European Workshop on Aviation, Aerosols, Contrails, and Cirrus Clouds, July 10-12, 2000, Seeheim, Germany.
Organization RE RTOP 621-82-80
- 641** Minnis, P.; Palikonda, R.; Duda, D. P.; and Costulis, P. K.: Contrail Coverage and Radiative Forcing Over the USA Derived From Satellite Data. Presented at 2000 Conference on Atmospheric Effects of Aviation, June 4-9, 2000, Snowmass, Colorado.
Organization RE RTOP 714-01-27
- 642** Minnis, P.; Smith, W. L.; Nguyen, L.; and Lin, B.: Cloud Properties and Radiation Budget Parameters Derived From Satellite Data for the Pan American Climate Studies (PACS). Presented at US CLIVAR Pan American PI Meeting, September 6-8, 2000, Potomac, Maryland.
Organization RE RTOP 622-96-00
- 643** Minnis, P.; and Young, D. F.: Cloud Microphysical Properties Derived From Geostationary Satellite Data. Presented at EUMETSAT Meteorological Satellite Data User's Conference 2000, May 29–June 2, 2000, Bologna, Italy. In Proceedings.
Organization RE RTOP 622-96-00

- 644** Minnis, P.; Young, D. F.; Charlock, T. P.; Priestley, K. J.; Wong, T.; Duda, D. P.; Loeb, N. G.; and Morcrette, J.-J.: Validation, Calibration, and Improvement of Cloud and Radiation Parameters Using MSG SERVIRI and GERB with CERES, MODIS, GOES, and Trianna Data. Presented at MSG RAO Workshop, May 17-19, 2000, Bologna, Italy. In Proceedings.
Organization RE RTOP 229-01-02
- 645** Minnis, P.; Young, D. F.; Nguyen, L.; and Pethick, D. G.: Cloud Properties Over the Arctic During SHEBA/FIRE ACE From ATSR-2 and AVHRR Data. Presented at FIRE/SHEBA Workshop, April 17-20, 2000, Boulder, Colorado.
Organization RE RTOP 622-43-31
- 646** Minnis, P.; Young, D. F.; Wielicki, B. A.; Heck, P. W.; Sun-Mack, S.; Lin, B.; and Dong, X.: Global and Cloud Properties Derived From Multispectral VIRS and MODIS Data for CERES. Presented at International Radiation Symposium 2000, July 24-29, 2000, St. Petersburg, Russia.
Organization RE RTOP 229-01-02
- 647** Nguyen, L.; Ayers, J. K.; Doelling, D. R.; Minnis, P.; and Young, D. F.: Rapid Intercalibration of Operational and Research Meteorological Satellite Imagers. Presented at International Radiation Symposium 2000, July 24-29, 2000, St. Petersburg, Russia.
Organization RE RTOP 229-01-02
- 648** Nordeen, M. L.; Doelling, D. R.; Pethick, D. G.; Nguyen, L.; and Minnis, P.: Cloud Plumes Observed at Nauru Using GMS Imagery. Presented at 10th Atmospheric Radiation Measurement Science Team Meeting, March 13-17, 2000, San Antonio, Texas.
Organization RE RTOP 622-96-00
- 649** Paden, J.; Lee, R. B., III; Pandey, D. K.; Smith, G. L.; Wilson, R. S.; and Priestley, K. J.: Validation and Analysis of Earth Radiation Budget Activity Cavity Radiometric Data (1985-1999). Presented at EOS/SPIE Symposium on Remote Sensing, September 25-29, 2000, Barcelona, Spain.
Organization RE RTOP 229-01-02
- 650** Palikonda, R.; Minnis, P.; and Mannstein, H.: Contrail Coverage and Radiative Properties Over the USA From AVHRR Data. Presented at XXV General Assembly Millennium Conference on Earth, Planetary & Solar Systems Sciences, April 25-29, 2000, Nice, France.
Organization RE RTOP 538-08-14
- 651** Pandey, D. K.; Lee, R. B., III; Brown, S. B.; Paden, J.; Smith, G. L.; Spence, P. L.; Priestley, K. J.; Barkstrom, B. R.; Thomas, S.; Wilson, R. S.; and Al-Hajjah, A.: Relationship Between the Clouds and the Earth's Radiant Energy System (CERES) Measurements and Surface Temperatures of Selected Ocean Regions. Presented at SPIE's 2nd International Asia-Pacific Symposium on Remote Sensing of the Atmosphere, Environment, and Space, October 9-12, 2000, Sendai, Japan.
Organization RE RTOP 229-01-02

- 652** Pitts, M. C.; Hostetler, C. A.; Poole, L. R.; Holden, C., Jr; and Rault, D. F.: An Airborne A-Band Spectrometer for the Remote Sensing of Aerosol and Cloud Optical Properties. Presented at EOS/SPIE Symposium on Remote Sensing, September 25-29, 2000, Barcelona, Spain. In Proceedings, Paper No. 4169-19.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-essrs-mcp.pdf>
Organization RE RTOP 259-40-01
- 653** Priestley, K. J.; Barkstrom, B. R.; Lee, R. B., III; Green, R. N.; Thomas, S.; Wilson, R. S.; Spence, P. L.; Paden, J.; Pandey, D. K.; and Al-Hajjah, A.: Post Launch Radiometric Validation of the Clouds and the Earth's Radiant Energy System (CERES) Proto-Flight Model on the Tropical Rainfall Measuring Mission (TRMM) Spacecraft Through 1999. *Journal of Applied Meteorology*, Volume 38, No. 12, December 2000, p. 2249-2258.
Organization RE RTOP 229-01-02
- 654** Smith, G. L.; Bess, T. D.; Manalo-Smith, N.; Ramanathan, V.; Lee, R. B., III; and Barkstrom, B. R.: Results From the CERES 8-12 Micron Window Channel. Presented at 33rd COSPAR Scientific Assembly, July 16-23, 2000, Warsaw, Poland.
Organization RE RTOP 229-01-02
- 655** Smith, G. L.; Pandey, D. K.; Spence, P. L.; Priestley, K. J.; Barkstrom, B. R.; Lee, R. B., III; Paden, J.; Thomas, S.; Wilson, R. S.; and Al-Hajjah, A.: Determination Validation of Slow Mode Coefficients of the Clouds and the Earth's Radiant Energy System (CERES) Scanning Thermistor Bolometers. Presented at SPIE's 45th Annual Meeting—Conference on Optical Systems Contamination and Degradation: Effects, Measurements, and Control, July 30–August 4, 2000, San Diego, California.
Organization RE RTOP 229-01-02
- 656** Smith, W. L.; Harrison, F. W.; Revercomb, H.; and Beugham, G. E.: Geostationary Imaging Fourier Transform Spectrometer (GIFTS)—The New Millennium Earth Observing-3 Mission to Demonstrate Breakthrough Technologies to Revolutionize Atmospheric Temperature, Moisture, and Wind Sounding. Presented at International Radiation Symposium 2000, July 24-29, 2000, St. Petersburg, Russia.
Organization RE RTOP 258-30-00
- 657** Smith, W. L.; Harrison, F. W.; Revercomb, H.; Bingham, G. E.; Huang, H. L.; and LeMarshall, J.: Satellite Interferometric Sounding at Very High Resolution. Presented at Fifth International Symposium on Tropospheric Profiling: Needs and Technology, December 4-8, 2000, Adelaide, Australia. In Proceedings.
Organization RE RTOP 282-10-01
- 658** Smith, W. L.; Harrison, W.; Hinton, D. E.; Revercomb, H.; Huang, A.; Velden, C.; Bingham, G. E.; and Huppi, R.: Geostationary Imaging Fourier Transform Spectrometer (GIFTS)—A System for Wind Profiling From Geostationary Satellites. Presented at Fifth International Winds Workshop, February 28–March 3, 2000, Lorne, Australia.
Organization RE RTOP 258-30-00

- 659** Smith, W. L.; Harrison, W.; Hinton, D. E.; Revercomb, H.; Huang, A.; Velden, C.; Bingham, G. E.; and Huppi, R.: Geostationary Imaging Fourier Transform Spectrometer (GIFTS)—A System for Wind Profiling From Geostationary Satellites. Presented at Korean Space Agency Meeting, February 19-26, 2000, Seoul, Korea.
Organization RE RTOP 258-30-00
- 660** Smith, W. L.; Zhou, D. K.; and Larar, A. M.: Hyperspectral Remote Sensing of Atmospheric Profiles From Satellites and Aircraft. Presented at SPIE's 2nd International Asia-Pacific Symposium on Remote Sensing of the Atmosphere, Environment, and Space, October 9-12, 2000, Sendai, Japan.
Organization RE RTOP 282-10-01
- 661** Smith, W. L., Jr.; Heck, P. W.; Nguyen, L.; Minnis, P.; Young, D. F.; and Kawamoto, K.: Cloud Properties Derived From Geostationary Satellite Data for the Atmospheric Radiation Measurement (ARM) Program. Presented at International Radiation Symposium 2000, July 24-29, 2000, St. Petersburg, Russia.
Organization RE RTOP 622-96-00
- 662** Smith, W. L., Jr.; Minnis, P.; Heck, P. W.; Young, D. F.; Kawamoto, K.; and Nguyen, L.: Improved Satellite Analyses for the ARM SGP. Presented at 10th Atmospheric Radiation Measurement Science Team Meeting, March 13-17, 2000, San Antonio, Texas.
Organization RE RTOP 622-43-31
- 663** Smith, W. L., Jr.; Minnis, P.; and Young, D. F.: An Icing Product Derived From Operational Satellite Data. Presented at Ninth Conference on Aviation, Range and Aerospace Meteorology, September 11-15, 2000, Orlando, Florida. In Proceedings, p. 256-259.
Organization RE RTOP 622-96-00
- 664** Spangenberg, D. A.; Minnis, P.; Chakrapani, V.; and Doelling, D. R.: Cloud Radiative Forcing From AVHRR Data Over the Arctic During FIRE ACE. Presented at FIRE/SHEBA Workshop, April 17-20, 2000, Boulder, Colorado.
Organization RE RTOP 622-43-31
- 665** Stackhouse, P. W., Jr.; Gupta, S. K.; Cox, S. J.; Chiacchio, M.; and Mikovitz, J.: The WCRP/GEWEX Surface Radiation Budget Project Release 2: An Assessment of Surface Fluxes at 1 Degree Resolution. Presented at International Radiation Symposium 2000, July 24-29, 2000, St. Petersburg, Russia. In Proceedings.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-irs-pws.pdf>
Organization RE RTOP 291-01-91
- 666** Stephens, G. L.; Ellingson, R. G.; Vitko, J., Jr.; Bolton, W.; Tooman, T. P.; Valero, F. P.; and Minnis, P.; *et al.*: The Department of Energy's Atmospheric Radiation Measurement (ARM) Unmanned Aerospace Vehicle (UAV) Program. *Bulletin of the American Meteorological Society*, Volume 81, No. 12, December 2000, p. 2915-2937.
Organization RE RTOP 622-96-00

- 667** Storm, J.; Schumann, U.; Gayet, J-F.; Ovarlez, J.; Flatoy, F.; Kulmala, M.; Schrems, O.; Minnis, P.; Diaz, S. B.; Milicic, B.; Valderama, V.; Amthauer, E.; Pettersson, J.; and Arnold, A.: Aerosol and Cirrus Measurements at Midlatitudes on the Southern Hemisphere—An Overview Based on the First INCA Experiment. Presented at European Workshop on Aviation, Aerosols, Contrails, and Cirrus Clouds, July 10-12, 2000, Seeheim, Germany.
Organization RA RTOP 621-82-80
- 668** Sun-Mack, S.; Chen, Y.; Minnis, P.; and Young, D. F.: Visible and Near-Infrared Clear-Sky and Surface Albedos From VIRS and MODIS for CERES. Presented at International Radiation Symposium 2000, July 24-29, 2000, St. Petersburg, Russia.
Organization RE RTOP 229-01-02
- 669** Thomas, S.; Lee, R. B., III; Priestley, K. J.; Barkstrom, B. R.; Al-Hajjah, A.; Wilson, R. S.; Paden, J.; and Pandey, D. K.: Early Trends on the Clouds and the Earth's Radiant Energy System (CERES) Instruments' Performances Using In-Flight Calibration Sources, for Earth Science Enterprise (ESE) TERRA Mission. Presented at SPIE 14th Annual International Symposium, April 24-28, 2000, Orlando, Florida.
Organization RE RTOP 229-01-02
- 670** Thomas, S.; Lee, R. B., III; Priestley, K. J.; Barkstrom, B. R.; Al-Hajjah, A.; Wilson, R. S.; Paden, J.; Pandey, D. K.; and Smith, G. L.: On-Orbit Radiometric Performance Results of CERES Instruments Aboard Tropical Rainfall Measuring Mission (TRMM) and Earth Science Enterprise Terra Spacecraft. Presented at 5th Pacific Ocean Remote Sensing Conference, December 5-8, 2000, Panaji, Goa, India. In Proceedings, Volume 1, p. 127-131.
Organization RE RTOP 229-01-02
- 671** Turner, D. D.; Feltz, W. F.; and Ferrare, R. A.: Continuous Water Profiles From Operational Ground-Based Active and Passive Remote Sensors. *Bulletin of the American Meteorological Society*, Volume 81, No. 6, June 2000, p. 1301-1317.
Organization RE RTOP 146-90-04
- 672** Valero, F. P.; Herman, J.; Minnis, P.; Collins, W.; Sadourny, R.; Wiscombe, W.; Lubin, D.; and Ogilvie, K. W.: Triana—A Deep Space Earth and Solar Observatory. Presented at National Academy of Sciences Meeting, January 12-13, 2000, Washington DC.
Organization RE RTOP 229-01-02
- 673** Valero, F. P.; Minnis, P.; Pope, S.; Bucholtz, A.; Bush, B. C.; Doelling, D. R.; Smith, W. L., Jr.; and Dong, X.: The Absorption of Solar Radiation by the Atmosphere as Determined Using Consistent Satellite, Aircraft and Surface Data During the Atmospheric Radiation Measurement Enhanced Short-Wave Experiment (ARESE). *Journal of Geophysical Research*, Volume 105, No. D4, 2000, p. 4743-4758.
Organization RE RTOP 146-90-04

- 674** Wang, P-H.; Veiga, R. E.; Vann, L. B.; Minnis, P.; and Kent, G. S.: A Further Study of the Method for Estimation of SAGE II Cloud Occurrence. Presented at Fifth International Symposium on Tropospheric Profiling: Needs and Technology, December 4-8, 2000, Adelaide, Australia. In Proceedings.
Organization RE RTOP 622-43-31
- 675** Wang, P-H.; Wielicki, B. A.; Minnis, P.; and Wong, T.: An Estimation of SAGE II Cloud Longwave Radiative Forcing Between 1985 and 1998: Preliminary Results. Presented at International Radiation Symposium 2000, July 24-29, 2000, St. Petersburg, Russia.
Organization RE RTOP 622-43-41
- 676** Wilber, A. C.; Smith, G. L.; and Stackhouse, P. W., Jr.: Regional Climatology and Statistics of Surface Radiation Budget. Presented at 15th Conference on Probability and Statistics in the Atmospheric Sciences, May 8-11, 2000, Asheville, North Carolina. In Proceedings.
Organization RE RTOP 291-01-91
- 677** Wilson, R. S.; Lee, R. B., III; Barkstrom, B. R.; Paden, J.; Pandey, D. K.; Priestley, K. J.; Smith, G. L.; Thomas, S.; and Al-Hajjah, A.: On-Orbit Solar Calibrations Using the Terra Clouds and Earth's Radiant Energy System (CERES) In-Flight Calibration System. Presented at SPIE's 45th Annual Meeting—Conference on Optical Systems Contamination and Degradation: Effects, Measurements, and Control, July 30–August 4, 2000, San Diego, California.
Organization RE RTOP 229-01-02
- 678** Wong, T.; Young, D. F.; Haeffelin, M. P.; and Weckmann, S.: On the Validation of the CERES/TRMM ERBE-Like Monthly-Mean Clear-Sky Longwave Dataset and the Effects of the 1998 ENSO Event. *Journal of Climate*, Volume 13, 2000, p. 4256-4267.
Organization RE RTOP 229-01-02
- 679** Woods, D. C.; and Osborn, M. T.: Twenty Six-Year Lidar Monitoring of the Northern Mid-Latitude Stratospheric Aerosol. Presented at EOS/SPIE Symposium on Remote Sensing, September 25-29, 2000, Barcelona, Spain.
Organization RE RTOP 229-10-32
- 680** Young, D. F.; Minnis, P.; Arduini, R. F.; and Woods-Vedeler, J. A.: A Comparison of Satellite Multispectral Cloud Microphysical Retrievals Over the ARM Sites. Presented at 10th Atmospheric Radiation Measurement Science Team Meeting, March 13-17, 2000, San Antonio, Texas.
Organization RE RTOP 622-43-31
- 681** Young, D. F.; Minnis, P.; Heck, P. W.; and Sun-Mack, S.: Cloud Properties for CERES Derived From Multispectral VIRS and MODIS Data. Presented at 33rd COSPAR Scientific Assembly, July 16-23, 2000, Warsaw, Poland.
Organization RE RTOP 229-01-02

- 682** Young, D. F.; Minnis, P.; Lin, B.; Ayers, J. K.; Ho, S-P.; Albrecht, B. A.; Rifkin, H.; Fairall, C. W.; and Garreaud, R.: Cloud and Radiation Properties Derived from Satellite Data During the Fall 1999 CIMAR-5 and EPIC Cruises. Presented at US CLIVAR Pan American PI Meeting, September 6-8, 2000, Potomac, Maryland.

Organization RE RTOP 622-96-00

Life Sciences

Category 52 Aerospace Medicine

- 683** Mileikowsky, C.; Cucinotta, F. A.; Wilson, J. W.; Gladman, B.; Horneck, G.; Lindegren, L.; Melosh, J.; Rickman, H.; Valtonen, M.; and Zheng, J. Q.: Natural Transfer of Viable Microbes in Space—Part 1: From Mars to Earth and Earth to Mars. *Icarus*, Volume 145, No. 2, June 2000, p. 391-427.

Organization RC RTOP 101-21-23

Category 53 Behavioral Sciences

- 684** Uenking, M. D.: Pilot Biofeedback Training in the Cognitive Awareness Training Study (CATS). Presented at AIAA Modeling and Simulation Technologies Conference, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4074.

Organization RD RTOP 548-50-21

Category 54 Man/System Technology and Life Support

- 685** Bogart, E. H.; and Pope, A. T.: Method for Visually Integrating Multiple Data Acquisition Technologies for Real Time and Retrospective Analysis. U. S. Patent 6,104,948. Issued August 15, 2000.

Organization RD

- 686** Rudisill, M.: Crew/Automation Interaction in Space Transportation Systems: Lessons Learned From the Glass Cockpit. Presented at Human Space Transportation and Exploration Workshop, February 29–March 1, 2000, Galveston, Texas. In Proceedings.

<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-hstew-mr.pdf>

Organization RA RTOP 853-10-00

- 687** Telban, R. J.; Wu, W.; and Cardullo, F. M.: Motion Cueing Algorithm Development: Initial Investigation and Redesign of the Algorithms. (NAS1-20454 Unisys Corporation.) NASA/CR-2000-209863, March 2000, 287 p.

Organization RD RTOP 992-30-11

Category 55 Space Biology

- 688** Mileikowsky, C.; Cucinotta, F. A.; Wilson, J. W.; Gladman, B.; Horneck, G.; Lindegren, L.; Melosh, J.; Rickman, H.; Valtonen, M.; and Zheng, J. Q.: Natural Interplanetary Transfer of Viable Microbes in Ejecta. Presented at Annual Astrobiology Science Conference, April 3-5, 2000, Moffett Field, California.

Organization RC

RTOP 101-21-23

Mathematical and Computer Sciences

Category 59 Mathematical and Computer Sciences (General)

- 689** Anon.: Semiannual Report—October 1, 1999 Through March 31, 2000. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210105, April 2000, 49 p.

Organization A

RTOP 505-90-52

- 690** Padula, S. L.; Rogers, J. L.; and Raney, D. L.: Multidisciplinary Techniques and Novel Aircraft Control Systems. Presented at 8th AIAA/NASA/USAF/ISSMO Multidisciplinary Analysis and Optimization Symposium, September 6-8, 2000, Long Beach, California. AIAA Paper No. 2000-4848.

<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-4848.pdf>

Organization RA

RTOP 522-32-21

Category 60 Computer Operations and Hardware

- 691** Al-Theneyan, A.; Mehrotra, P.; and Zubair, M.: Enhancing Jini for Use Across Non-Multicastable Networks. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210329, ICASE Report No. 2000-34, September 2000, 13 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-34.pdf>

Organization A

RTOP 505-90-52

- 692** Anderson, W. K.; Gropp, W. D.; Kaushik, D. K.; Keyes, D. E.; and Smith, B. F.: Achieving High Sustained Performance in an Unstructured Mesh CFD Application. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210080, ICASE Report No. 2000-2, January 2000, 16 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-2.pdf>

Organization A

RTOP 505-90-52

- 693** Ayala-Rincon, M.; and Munoz, C.: Explicit Substitutions and All That. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210621, ICASE Report No. 2000-45, November 2000, 27 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-45.pdf>

Organization A

RTOP 505-90-52

- 694** Chen, Z.; Maly, K.; Mehrotra, P.; and Zubair, M.: Arcade: A Web-Java Based Framework for Distributed Computing. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210545, ICASE Report No. 2000-39, October 2000, 14 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-39.pdf>
Organization A RTOP 505-90-52
- 695** Cleaveland, R.; and Luetten, G.: Model Checking is Refinement—Relating Buchi Testing and Linear-Time Temporal Logic. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210090, ICASE Report No. 2000-14, March 2000, 25 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-14.pdf>
Organization A RTOP 505-90-52
- 696** Hysom, D. A.; and Pothen, A.: Efficient Parallel Computation of ILU(k) Preconditioners. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210120, ICASE Report No. 2000-23, May 2000, 21 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-23.pdf>
Organization A RTOP 505-90-52
- 697** Hysom, D. A.; and Pothen, A.: Parallel ILU Ordering and Convergence Relationships: Numerical Experiments. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210119, ICASE Report No. 2000-24, May 2000, 23 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-24.pdf>
Organization A RTOP 505-90-52
- 698** Luetten, G.; and Mendler, M.: The Intuitionism Behind Statecharts Steps. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210302, ICASE Report No. 2000-28, July 2000, 45 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-28.pdf>
Organization A RTOP 505-90-52
- 699** Luetten, G.; Munoz, C.; Butler, R. W.; Di Vito, B. L.; and Miner, P. S.: Towards a Customizable PVS. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-209851, ICASE Report No. 2000-4, January 2000, 19 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-4.pdf>
Organization A RTOP 505-90-52
- 700** Luetten, G.; Von Der Beeck, M.; and Cleaveland, R.: A Compositional Approach to Statecharts Semantics. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210086, ICASE Report No. 2000-12, March 2000, 20 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-12.pdf>
Organization A RTOP 505-90-52

- 701** Mehrotra, P.; and Zima, H.: High Performance Fortran for Aerospace Applications. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210321, ICASE Report No. 2000-31, December 2000, 27 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-31.pdf>
Organization A RTOP 505-90-52
- 702** Munoz, C.; and Carreno, V. A.: Aircraft Trajectory Modeling and Alerting Algorithm Verification. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210097, ICASE Report No. 2000-16, April 2000, 25 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-16.pdf>
Organization A RTOP 505-90-52
- 703** Nicol, D. M.; and Ciardo, G.: Automated Parallelization of Discrete State-Space Generation. (NAS1-19480 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210082, ICASE Report No. 2000-11, March 2000, 24 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-11.pdf>
Organization A RTOP 505-90-52

Category 61 Computer Programming and Software

- 704** Anon.: Fault Tree Analysis—A Bibliography. NASA/SP-2000-6111, July 2000, 107 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/spec/NASA-2000-sp6111.pdf>
Organization RF RTOP 284-30-10
- 705** Butler, R. W.: WINSURE: A New Windows Interface to the SURE Program. Presented at 19th Digital Avionics Systems Conference, October 7-13, 2000, Philadelphia, Pennsylvania.
Organization RD RTOP 522-61-21
- 706** Holloway, C. M. (Compiler): Lfm2000—Fifth NASA Langley Formal Methods Workshop. NASA/CP-2000-210100, June 2000, 209 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cp/NASA-2000-cp210100.pdf>
Organization RD RTOP 519-50-11
- 707** Kodiyalam, S.; Yang, R-J.; and Sobiesczanski-Sobieski, J.: Optimization of Car Body Under Constraints of Noise, Vibration, and Harshness (NVH), and Crash. Presented at NASA Computational Aerosciences Workshop, February 15-17, 2000, Moffett Field, California.
Organization RA RTOP 509-10-31
- 708** Rehder, J. J.: Cooperating Scouts for Information Retrieval. Presented at The Sixth Pacific Rim International Conference on Artificial Intelligence, August 28–September 1, 2000, Melbourne, Australia.
Organization RA RTOP 509-10-11

- 709** Rehder, J. J.; Salas, A. O.; and Mukhopadhyay, V.: High Speed Civil Transport Design Capability Using MDO and High Performance Computing. Presented at HPCC/CAS 2000 Workshop, February 15-17, 2000, Moffett Field, California.
Organization RA RTOP 509-10-31
- 710** Rogers, J. L.: A Parallel Approach to Optimum Actuator Selection With a Genetic Algorithm. Proceedings of AIAA Guidance, Navigation, and Control Conference, August 14-17, 2000, Denver, Colorado. AIAA Paper No. 2000-4484.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-4484.pdf>
Organization RA RTOP 522-32-31
- 711** Salas, A. O.: Aerospike Nozzle Design Using iSIGHT. Presented at 2000 International iSIGHT Users' Conference, October 2-4, 2000, Chapel Hill, North Carolina.
Organization RA RTOP 509-10-11
- 712** Torres-Pomales, W.: Software Fault Tolerance: A Tutorial. NASA/TM-2000-210616, October 2000, 66 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210616.pdf>
Organization RD RTOP 522-61-21

Category 62 Computer Systems

- 713** Eure, K. W.; and Weinstein, B.: Modeling and Real-Time Estimation of Nominal System Control Commands. Presented at 19th Digital Avionics Systems Conference, October 7-13, 2000, Philadelphia, Pennsylvania.
Organization RD RTOP 577-30-10
- 714** Miner, P. S.; Carreno, V. A.; Malekpour, M. R.; and Torres, W.: A Case Study Application of RTCA DO-254: Design Assurance Guidance for Airborne Electronic Hardware. Presented at 19th Digital Avionics Systems Conference, October 7-13, 2000, Philadelphia, Pennsylvania.
Organization RD RTOP 505-64-10
- 715** Reid, J.; Egge, R.; and McAfee, N.: Evaluation of an Internet-Based, Bibliographic Database: Results of the NASA STI Program's ASAP User Test. (NAS1-20048 Computer Sciences Corporation.) NASA/CR-2000-210018, June 2000, 13 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210018.pdf>
Organization RF RTOP 284-30-10

Category 63 Cybernetics

- 716** Joshi, S. M.: Robust Control of Uncertain Systems via Dissipative LQG-Type Controllers. NASA/TM-2000-209866, March 2000, 18 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209866.pdf>
Organization RD RTOP 706-11-21

- 717** Joshi, S. M.; Cox, D. E.; and Kelkar, A. G.: Robust Control of Uncertain Systems via Norm- and Sector-Bounded LQG-Type Controllers. Presented at 2000 American Control Conference, June 28-30, 2000, Chicago, Illinois. In Proceedings, Paper No. WP11-6.
Organization RD RTOP 522-33-41
- 718** Kelkar, A. G.; Mao, Y.; and Joshi, S. M.: LMI-Based Passification for Control of Non-Passive Systems. Presented at 2000 American Control Conference, June 28-30, 2000, Chicago, Illinois. In Proceedings, Paper No. WP11-5.
Organization RD RTOP 522-33-41
- 719** Motter, M. A.: Predictive Multiple Model Switching Control With the Self-Organizing Map. Presented at IEEE-INNS-ENNS International Joint Conference on Neural Networks 2000, July 24-27, 2000, Como, Italy. In Proceedings, Volume 4, p. 317-322.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-iiejcnn-mam.pdf>
Organization RD RTOP 522-33-11
- 720** Tao, G.; Ma, X.; and Joshi, S. M.: Adaptive Output Tracking Control of Systems With Actuator Failures. Presented at 2000 American Control Conference, June 28-30, 2000, Chicago, Illinois. In Proceedings, Paper No. TP07-2.
Organization RD RTOP 522-33-41
- 721** Tao, G.; Ma, X.; and Joshi, S. M.: Adaptive State Feedback Control of Systems With Actuator Failures. Presented at 2000 American Control Conference, June 28-30, 2000, Chicago, Illinois. In Proceedings, Paper No. TP07-5.
Organization RD RTOP 522-33-41

Category 64 Numerical Analysis

- 722** Alexandrov, N. M.; and Lewis, R. M.: First-Order Frameworks for Managing Models in Engineering Optimization. Presented at First International Workshop on Surrogate Modelling and Space Mapping for Engineering Optimization, November 16-18, 2000, Lyngby, Denmark. In Proceedings.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-1iwsmsmeo-nma.pdf>
Organization RA RTOP 706-31-21
- 723** Alexandrov, N. M.; Nielsen, E. J.; Lewis, R. M.; and Anderson, W. K.: First-Order Model Management With Variable-Fidelity Physics Applied to Multi-Element Airfoil Optimization. Presented at 8th AIAA/NASA/USAF/ISSMO Multidisciplinary Analysis and Optimization Symposium, September 6-8, 2000, Long Beach, California. AIAA Paper No. 2000-4886.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-4886.pdf>
Organization RA RTOP 706-31-21

- 724** Allan, B. G.; Juang, J-N.; Raney, D. L.; Seifert, A.; Pack, L. G.; and Brown, D. E.: Closed-Loop Separation Control Using Oscillatory Flow Excitation. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210324, ICASE Report No. 2000-32, August 2000, 27 p.
<ftp://ftp.icode.edu/pub/techreports/2000/2000-32.pdf>
Organization A RTOP 505-90-52
- 725** Arian, E.; Fahl, M.; and Sachs, E. W.: Trust-Region Proper Orthogonal Decomposition for Flow Control. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210124, ICASE Report No. 2000-25, May 2000, 23 p.
<ftp://ftp.icode.edu/pub/techreports/2000/2000-25.pdf>
Organization A RTOP 505-90-52
- 726** Bauchau, O. A.; Choi, J-Y.; and Bottasso, C. L.: On the Modeling of Shells in Multibody Dynamics. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210556, ICASE Report No. 2000-42, November 2000, 28 p.
<ftp://ftp.icode.edu/pub/techreports/2000/2000-42.pdf>
Organization A RTOP 505-90-52
- 727** Bottasso, C. L.; Bauchau, O. A.; and Choi, J-Y.: An Energy Decaying Scheme for Nonlinear Dynamics of Shells. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210557, ICASE Report No. 2000-43, November 2000, 28 p.
<ftp://ftp.icode.edu/pub/techreports/2000/2000-43.pdf>
Organization A RTOP 505-90-52
- 728** Bottasso, C. L.; Micheletti, S.; and Sacco, R.: Discontinuous Dual-Primal Mixed Finite Elements for Elliptic Problems. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210543, ICASE Report No. 2000-37, October 2000, 22 p.
<ftp://ftp.icode.edu/pub/techreports/2000/2000-37.pdf>
Organization A RTOP 505-90-52
- 729** Chen, T.: Determining a Prony Series for a Viscoelastic Material From Time Varying Strain Data. NASA/TM-2000-210123, ARL-TR-2206, May 2000, 26 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210123.pdf>
Organization RC RTOP 706-13-31
- 730** Cockburn, B.; Luskin, M.; Shu, C-W.; and Suli, E.: Enhanced Accuracy by Post-Processing for Finite Element Methods for Hyperbolic Equations. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210625, ICASE Report No. 2000-47, December 2000, 34 p.
<ftp://ftp.icode.edu/pub/techreports/2000/2000-47.pdf>
Organization A RTOP 505-90-52

- 731** Cockburn, B.; and Shu, C-W.: Runge-Kutta Discontinuous Galerkin Methods for Convection-Dominated Problems. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210624, ICASE Report No. 2000-46, November 2000, 80 p.
Organization A RTOP 505-90-52
- 732** Dolan, E. D.; Lewis, R. M.; and Torczon, V.: On the Local Convergence of Pattern Search. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210535, ICASE Report No. 2000-36, September 2000, 20 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-36.pdf>
Organization A RTOP 505-90-52
- 733** Fibich, G.; and Tsynkov, S. V.: High-Order Two-Way Artificial Boundary Conditions for Nonlinear Wave Propagation With Backscattering. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210326, ICASE Report No. 2000-33, August 2000, 44 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-33.pdf>
Organization A RTOP 505-90-52
- 734** Gottlieb, S.; Shu, C-W.; and Tadmor, E.: Strong Stability Preserving High-Order Time Discretization Methods. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210093, ICASE Report No. 2000-15, April 2000, 28 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-15.pdf>
Organization A RTOP 505-90-52
- 735** Jones, R. L.: Analysis of Phase-Type Stochastic Petri Nets With Discrete and Continuous Timing. (NAS1-99124 ASRC Aerospace Corporation.) NASA/CR-2000-210296, November 2000, 91 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210296.pdf>
Organization RD RTOP 519-51-41
- 736** Joyner, M. L.; Banks, H. T.; Wincheski, R. A.; and Winfree, W. P.: Nondestructive Evaluation Using a Reduced Order Computational Methodology. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-209870, ICASE Report No. 2000-10, March 2000, 22 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-10.pdf>
Organization A RTOP 505-90-52
- 737** Kodiyalam, S.; and Yuan, C.: Evaluation of Methods for Multidisciplinary Design Optimization (MDO), Part II. (NAS5-96012 Engineous Software, Inc.) NASA/CR-2000-210313, November 2000, 51 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210313.pdf>
Organization RA RTOP 509-10-31

- 738** Lewis, R. M.; Torczon, V.; and Trosset, M. W.: Direct Search Methods: Then and Now. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210125, ICASE Report No. 2000-26, May 2000, 21 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-26.pdf>
Organization A RTOP 505-90-52
- 739** Llorente, I. M.; Prieto-Matias, M.; and Diskin, B.: An Efficient Parallel Multigrid Solver for 3-D Convection-Dominated Problems. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210319, ICASE Report No. 2000-29, August 2000, 33 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-29.pdf>
Organization A RTOP 505-90-52
- 740** Loncaric, J.; Ryaben'kii, V. S.; and Tsynkov, S. V.: Active Shielding and Control of Environmental Noise. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-209862, ICASE Report No. 2000-9, February 2000, 35 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-9.pdf>
Organization A RTOP 505-90-52
- 741** Mavriplis, D. J.: Parallel Performance Investigations of an Unstructured Mesh Navier-Stokes Solver. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210088, ICASE Report No. 2000-13, March 2000, 23 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-13.pdf>
Organization A RTOP 505-90-52
- 742** Montero, R. S.; and Llorente, I. M.: Robust Multigrid Algorithms for the Incompressible Navier-Stokes Equations. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210126, ICASE Report No. 2000-27, May 2000, 24 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-27.pdf>
Organization A RTOP 505-90-52
- 743** Raju, I. S.; and Chen, T.: Meshless Petrov-Galerkin Method Applied to Axisymmetric Problems. Presented at International Conference on Computational Engineering and Sciences, August 21-25, 2000, Los Angeles, California. In Proceedings, Volume II, p. 1469-1474.
Organization RC RTOP 706-13-31
- 744** Roberts, T. W.; Sidilkover, D.; and Tsynkov, S. V.: On the Combined Performance of Non-Local Artificial Boundary Conditions With the New Generation of Advanced Multigrid Flow Solvers. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210115, ICASE Report No. 2000-21, April 2000, 43 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-21.pdf>
Organization A RTOP 505-90-52
- 745** Samareh, J. A.: Parameterizing Shape Perturbations for Multidisciplinary Design Optimization. NASA Tech Brief L-17841, February 2000.
Organization RA

- 746** Samareh, J. A.: Multidisciplinary Aerodynamic-Structural Shape Optimization Using Deformation (MASSOUD). Presented at 8th AIAA/NASA/USAF/ISSMO Multidisciplinary Analysis and Optimization Symposium, September 6-8, 2000, Long Beach, California. AIAA Paper No. 2000-4911.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-4911.pdf>
Organization RA RTOP 509-10-11
- 747** Samareh, J. A.; and Bhatia, K. G.: A Unified Approach to Modeling Multidisciplinary Interactions. Presented at 8th AIAA/NASA/USAF/ISSMO Multidisciplinary Analysis and Optimization Symposium, September 6-8, 2000, Long Beach, California. AIAA Paper No. 2000-4704.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-4704.pdf>
Organization RA RTOP 706-17-21
- 748** Shi, J.; Hu, C.; and Shu, C-W.: A Technique of Treating Negative Weights in WENO Schemes. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210632, ICASE Report No. 2000-49, December 2000, 22 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-49.pdf>
Organization A RTOP 505-90-52
- 749** Smith, R. C.; and Ounaies, Z.: A Model for Asymmetric Hysteresis in Piezoceramic Materials. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-209837, ICASE Report No. 2000-1, January 2000, 11 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-1.pdf>
Organization A RTOP 505-90-52
- 750** Thomas, J. L.; Diskin, B.; Brandt, A.; and South, J. C., Jr.: General Framework for Achieving Textbook Multigrid Efficiency: One-Dimensional Euler Example. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210320, ICASE Report No. 2000-30, August 2000, 21 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-30.pdf>
Organization A RTOP 505-90-52
- 751** Xu, K.: A Gas-Kinetic BGK Scheme for the Compressible Navier-Stokes Equations. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2000-210544, ICASE Report No. 2000-38, October 2000, 37 p.
<ftp://ftp.icase.edu/pub/techreports/2000/2000-38.pdf>
Organization A RTOP 505-90-52

Category 66 Systems Analysis

- 752** Alexandrov, N. M.; and Lewis, R. M.: Analytical and Computational Properties of Distributed Approaches to MDO. Presented at 8th AIAA/NASA/USAF/ISSMO Multidisciplinary Analysis and Optimization Symposium, September 6-8, 2000, Long Beach, California. In Proceedings, AIAA Paper No. 2000-4718.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-4718.pdf>
Organization RA RTOP 706-31-21
- 753** Alexandrov, N. M.; and Lewis, R. M.: Analytical and Computational Aspects of Collaborative Optimization. NASA/TM-2000-210104, April 2000, 31 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210104.pdf>
Organization RA RTOP 706-31-21
- 754** Alexandrov, N. M.; and Lewis, R. M.: Algorithmic Perspectives on Problem Formulations in MDO. Presented at 8th AIAA/NASA/USAF/ISSMO Multidisciplinary Analysis and Optimization Symposium, September 6-8, 2000, Long Beach, California. In Proceedings, AIAA Paper No. 2000-4719.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-4719.pdf>
Organization RA RTOP 706-31-21
- 755** Malekpour, M. R.; and Torres, W.: Characterization of a Flight Control Computer With Rollback Recovery. Presented at 19th Digital Avionics Systems Conference, October 7-13, 2000, Philadelphia, Pennsylvania. In Proceedings, p. 3.C.4-1 - 3.C.4-8.
Organization RD RTOP 522-61-21

Physics

Category 70 Physics (General)

- 756** Cramer, K. E.; and Winfree, W. P.: Thermal Nondestructive Characterization of Corrosion in Boiler Tubes by Application of a Moving Line Heat Source. NASA/TM-2000-209685, January 2000, 15 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209685.pdf>
Organization RC RTOP 522-18-11
- 757** Hinton, Y. L.; Na, J. K.; Yost, W. T.; and Kessel, G.: Field Measurement of the Acoustic Nonlinearity Parameter in Turbine Blades. NASA/TM-2000-210303, ARL-TR-2244, September 2000, 12 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210303.pdf>
Organization RC RTOP 706-12-21
- 758** Hu, H.: On the Coupling of CDISC Design Method With FPX Rotor Code. (NAS1-19935 Hampton University.) NASA/CR-2000-210314, December 2000, 40 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/cr/2000/NASA-2000-cr210314.pdf>
Organization RB RTOP 505-598-7

- 759** Noor, A. K. (Compiler): Nanobiotechnology. NASA/CP-2000-210546, October 2000, 281 p.
Organization OI RTOP 282-10-11
- 760** Plotnikov, Y.; Rajic, N.; and Winfree, W. P.: Means of Eliminating Background Effects for Defect Detection and Visualization in Infrared Thermography. *Optical Engineering*, Volume 39, No. 4, April 2000, p. 879-884.
Organization RC RTOP 538-13-12
- 761** Vann, L. B.; Kent, G. S.; and Wang, P-H.: Trends in High-Altitude Cloud Occurrence Within Frequently Traveled Flight Corridors Using SAGE II Satellite Data. Presented at 2000 Conference on Atmospheric Effects of Aviation, June 4-9, 2000, Snowmass, Colorado.
Organization RE RTOP 621-45-20
- 762** Winfree, W. P.; Heath, D. M.; and Cramer, K. E.: Imaging Thermal Diffusivity With a Moving Line Source. Presented at 27th Annual Review of Progress in Quantitative Nondestructive Evaluation, July 16-21, 2000, Ames, Iowa.
Organization RC RTOP 706-12-21

- 763** Winfree, W. P.; Parker, F. R.; and Howell, P. A.: Detection of Cracks in Aircraft Structures With Reverse Geometry X-Ray®. Presented at 4th Joint DOD/FAA/NASA Conference on Aging Aircraft, May 15-18, 2000, St. Louis, Missouri.
Organization RC RTOP 706-12-21

Category 71 Acoustics

- 764** Ahuja, K. K.; Cataldi, P.; and Gaeta, R. J., Jr.: Sound Absorption of a 2DOF Resonant Liner With Negative Bias Flow. (NAG1-1734 Georgia Institute of Technology.) NASA/CR-2000-210637, December 2000, 42 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210637.pdf>
Organization RB RTOP 522-63-11
- 765** Ahuja, K. K.; and Gaeta, R. J., Jr.: Active Control of Liner Impedance by Varying Perforate Orifice Geometry. (NAG1-1734 Georgia Institute of Technology.) NASA/CR-2000-210633, December 2000, 208 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210633.pdf>
Organization RB RTOP 522-63-11
- 766** Ahuja, K. K.; Gaeta, R. J., Jr.; and D'Agostino, M.: High Amplitude Acoustic Behavior of a Slit-Orifice Backed by a Cavity. (NAG1-1734 Georgia Institute of Technology.) NASA/CR-2000-210635, December 2000, 86 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210635.pdf>
Organization RB RTOP 522-63-11

- 767** Ahuja, K. K.; Gaeta, R. J., Jr.; and D'Agostino, M.: Acoustic Absorption Characteristics of an Orifice With a Mean Bias Flow. (NAG1-1734 Georgia Institute of Technology.) NASA/CR-2000-210636, December 2000, 35 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210636.pdf>
Organization RB RTOP 522-63-11
- 768** Ahuja, K. K.; Munro, S.; and Gaeta, R. J., Jr.: Flow Duct Data for Validation of Acoustic Liner Codes for Impedance Eduction. (NAG1-1734 Georgia Institute of Technology.) NASA/CR-2000-210634, December 2000, 128 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210634.pdf>
Organization RB RTOP 522-63-11
- 769** Betts, J. F.; Follet, J. I.; Kelly, J. J.; and Thomas, R. H.: Evaluation of an Impedance Model for Perforates Including the Effect of Bias Flow. Presented at 6th AIAA/CEAS Aeroacoustics Conference, June 12-14, 2000, Lahaina, Hawaii. AIAA Paper No. 2000-1949.
Organization RB RTOP 522-81-12
- 770** Brentner, K. S.: Modeling Aerodynamically Generated Sound: Recent Advances in Rotor Noise Prediction. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0345.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0345.pdf>
Organization RB RTOP 712-20-21
- 771** Brentner, K. S.; and Jones, H. E.: Noise Prediction for Maneuvering Rotorcraft. Presented at 6th AIAA/CEAS Aeroacoustics Conference, June 12-14, 2000, Lahaina, Hawaii. AIAA Paper No. 2000-2031.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-2031.pdf>
Organization RB RTOP 581-20-21
- 772** Brooks, T. F.; Boyd, D. D., Jr.; Burley, C. L.; and Jolly, J. R.: Aeroacoustic Codes for Rotor Harmonic and BVI Noise—CAMRAD.Mod1/HIRES. *Journal of the American Helicopter Society*, Volume 45, No. 2, April 2000, p. 63-79.
Organization RB RTOP 505-63-36
- 773** Brooks, T. F.; and Humphreys, W. M., Jr.: Flap Edge Aeroacoustic Measurements and Predictions. Presented at 6th AIAA/CEAS Aeroacoustics Conference, June 12-14, 2000, Lahaina, Hawaii. AIAA Paper No. 2000-1975.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1975.pdf>
Organization RB RTOP 706-81-13
- 774** Buehrle, R. D.; Fleming, G. A.; Pappa, R. S.; and Grosveld, F. W.: Finite Element Model Development and Validation for Aircraft Fuselage Structures. Presented at 18th International Modal Analysis Conference, February 7-10, 2000, San Antonio, Texas. In Proceedings, Paper No. 54.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-18imac-rdb.pdf>
Organization RB RTOP 706-81-14

- 775** Burley, C. L.; Marcolini, M. A.; Brooks, T. F.; Brand, A. G.; and Conner, D. A.: Tiltrotor Aeroacoustic Code (TRAC) Predictions and Comparison With Measurements. *Journal of the American Helicopter Society*, Volume 45, No. 2, April 2000, p. 80-89.
Organization RB RTOP 505-63-36
- 776** Cabell, R. H.; and Gibbs, G. P.: Hybrid Active/Passive Control of Sound Radiation From Panels With Constrained Layer Damping and Model Predictive Feedback Control. Presented at 140th Meeting of the Acoustical Society of America and Noise-Con 2000, December 3-8, 2000, Newport Beach, California. In Proceedings, Paper No. OpNSa5.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-140asa-rch.pdf>
Organization RB RTOP 522-63-11
- 777** Conner, D. A.; Edwards, B. D.; Decker, W. A.; Marcolini, M. A.; and Klein, P. D.: NASA/Army/Bell XV-15 Tiltrotor Low Noise Terminal Area Operations Flight Research Program. Presented at 6th AIAA/CEAS Aeroacoustics Conference, June 12-14, 2000, Lahaina, Hawaii. AIAA Paper No. 2000-1923.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-1923.pdf>
Organization RB RTOP 576-03-15
- 778** Doyle, J. F.: Application of the Spectral Element Method to Acoustic Radiation. (NAG1-1749 Purdue University.) NASA/CR-2000-210642, December 2000, 81 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210642.pdf>
Organization RB RTOP 781-20-11
- 779** Farassat, F.: The Integration of δ' (f) in a Multidimensional Space. *Journal of Sound and Vibration*, Volume 230, No. 2, February 17, 2000, p. 460-462.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/jp/NASA-2000-jsv-ff.pdf>
Organization RB RTOP 538-03-12
- 780** Farassat, F.; and Baty, R. S.: Application of Nonstandard Analysis to the Study of the Shock Structure in a Viscous Heat Conducting Fluid. Presented at 53rd Annual Meeting of the American Physical Society's Division of Flu, November 19-21, 2000, Washington, DC.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-53apsdfd-ff.pdf>
Organization RB RTOP 522-81-12
- 781** Fields, J. M.; Ehrlich, G. E.; and Zador, P.: Theory and Design Tools for Studies of Reactions to Abrupt Changes in Noise Exposure. (NAS1-20103 Wyle Laboratories.) NASA/CR-2000-210280, October 2000, 198 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210280.pdf>
Organization RB RTOP 522-81-15
- 782** Follet, J. I.; Betts, J. F.; Kelly, J. J.; and Thomas, R. H.: Experimental Impedance of Single Liner Elements With Bias Flow. Presented at 6th AIAA/CEAS Aeroacoustics Conference, June 12-14, 2000, Lahaina, Hawaii. AIAA Paper No. 2000-1950.
Organization RB RTOP 522-81-12

- 783** Gibbs, G. P.; Clark, R. L.; Cox, D. E.; and Vipperman, J. S.: Radiation Modal Expansion: Application to Active Structural Acoustic Control. *Journal of the Acoustical Society of America*, Volume 107, No. 1, 2000, p. 332-339.
Organization RB RTOP 538-03-14
- 784** Giovanardi, M.; Degon, B.; and Cabell, R. H.: Active-Passive Hybrid Damping of Sound Radiated by Plates. Presented at 2000 International Mechanical Engineering Congress & Exposition, November 5-10, 2000, Orlando, Florida.
Organization RB RTOP 522-63-11
- 785** Johnson, M. E.; and Fuller, C. R.: Development and Testing of a High Level Axial Array Duct Sound Source for the NASA Flow Impedance Test Facility. (L-9969 Fuller Technologies, Inc.) NASA/CR-2000-210645, December 2000, 40 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210645.pdf>
Organization RB RTOP 522-63-11
- 786** Lieber, L.: Small Engine Technology (SET)—Task 13 ANOPP Noise Prediction for Small Engines—Jet Noise Prediction Module, Wing Shielding Module, and System Studies Results. (NAS3-27483 AlliedSignal Engines and Systems.) NASA/CR-2000-209706, September 2000, 177 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr209706.pdf>
Organization RB RTOP 538-03-13
- 787** Lieber, L.; and Brown, D.: Small Engine Technology (SET) Task 23 ANOPP Noise Prediction for Small Engines—Wing Reflection Code. (NAS3-27483 Honeywell Engines and Systems.) NASA/CR-2000-210630, November 2000, 108 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210630.pdf>
Organization RB RTOP 522-81-13
- 788** Lockard, D. P.: Implementation and Application of the Two-Dimensional Ffowcs Williams-Hawkings Equation. Presented at The Pennsylvania State University Center for Acoustics and Vibration Fall 2000 Flow Induced Noise Lecture, November 30, 2000, University Park, Pennsylvania.
Organization RB RTOP 706-31-51
- 789** Lockard, D. P.: An Efficient, Two-Dimensional Implementation of the Ffowcs Williams and Hawkings Equation. *Journal of Sound and Vibration*, Volume 229, No. 4, January 2000, p. 897-911.
Organization RB RTOP 522-31-61
- 790** Long, L. N.; and Brentner, K. S.: Self-Scheduling Parallel Methods for Multiple Serial Codes With Application to WOPWOP. Presented at 38th AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada. AIAA Paper No. 2000-0346.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/aiaa/NASA-aiaa-2000-0346.pdf>
Organization RB RTOP 522-31-61

- 791** Maestrello, L.: Active Control by Conservation of Energy Concept. Presented at 6th AIAA/CEAS Aeroacoustics Conference, June 12-14, 2000, Lahaina, Hawaii. AIAA Paper No. 000-2045.
Organization RB RTOP 522-81-14
- 792** Maestrello, L.: Controlling Chaos Via Knowledge of Initial Condition for a Curved Structure. Presented at 6th AIAA/CEAS Aeroacoustics Conference, June 12-14, 2000, Lahaina, Hawaii. AIAA Paper No. 2000-2016.
Organization RB RTOP 522-81-14
- 793** Maestrello, L.: Control of Shock Loading From a Jet in a Flexible Structure's Presence. *AIAA Journal*, Volume 38, No. 6, June 2000, p. 972-977.
Organization RB RTOP 522-32-31
- 794** Maestrello, L.: Controlling Nonlinearity and Chaos. Presented at 139th Meeting of the Acoustical Society of America, May 30–June 3, 2000, Atlanta, Georgia. In Proceedings.
Organization RB RTOP 522-81-14
- 795** Maestrello, L.: Active Control by Conservation of Energy Concept. Presented at AE 690-Aerospace Engineering Seminar, April 14, 2000, Hampton, Virginia.
Organization RB RTOP 522-81-14
- 796** Miller, N. P.; Anderson, G. S.; Horonjeff, R. D.; Kimura, S.; Miller, J. S.; Senzig, D. A.; and Thompson, R. H.: Examining INM Accuracy Using Empirical Sound Monitoring and Radar Data. (NAS1-20102 Harris Miller Miller & Hanson, Inc.) NASA/CR-2000-210113, April 2000, 133 p.
Organization RB RTOP 538-03-15
- 797** Mukhopadhyay, V.: Transonic Flutter Suppression Control Law Design and Wind Tunnel Test Results. *Journal of Guidance, Control, and Dynamics*, Volume 23, No. 5, September–October 2000, p. 930-937.
Organization RA RTOP 509-10-11
- 798** Murty, H.; and Berezin, C.: Rotorcraft Noise Abatement Flight Path Modeling. (NAS1-20097 Sikorsky Aircraft Corporation.) NASA/CR-2000-209353, February 2000, 77 p.
Organization RB RTOP 581-20-31
- 799** Page, J. A.; Hobbs, C. M.; Plotkin, K. J.; and Stusnick, E.: Validation of Aircraft Noise Prediction Models at Low Levels of Exposure. (NAS1-20103 Wyle Laboratories.) NASA/CR-2000-210112, April 2000, 97 p.
Organization RB RTOP 538-03-15
- 800** Palumbo, D. L.; and Cabell, R. H.: Optimizing Sensor and Actuator Arrays for ASAC Noise Control. Presented at 2000 SAE General, Corporate, and Regional Aviation Meeting and Exposition, May 9-11, 2000, Wichita, Kansas. SAE Paper No. 2000-01-1707.
Organization RB RTOP 522-81-14

- 801** Palumbo, D. L.; Cabell, R. H.; Cline, J. H.; and Sullivan, B. M.: Active Structural Acoustic Control of Interior Noise on a Raytheon 1900D. NASA/TM-2000-209846, ARL-TR-2205, March 2000, 80 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209846.pdf>
Organization RB RTOP 538-03-14
- 802** Plotkin, K. J.; Hobbs, C. M.; and Bradley, K. A.: Examination of the Lateral Attenuation of Aircraft Noise. (NAS1-20103 Wyle Laboratories.) NASA/CR-2000-210111, April 2000, 61 p.
Organization RB RTOP 538-03-15
- 803** Powell, C. A.; and Preisser, J. S.: NASA Subsonic Jet Transport Noise Reduction Research. Presented at 22nd Congress of the International Council of the Aeronautical Sciences, August 27–September 1, 2000, Harrogate, United Kingdom. In Proceedings, Paper No. ICAS-2000-3.9.1.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-22cicas-cap.pdf>
Organization RB RTOP 538-03-11
- 804** Powell, C. A.; and Sullivan, B. M.: Potential Subjective Effectiveness of Active Interior Noise Control in Propeller Airplanes. NASA/TM-2000-210122, May 2000, 38 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA/2000-tm210122.pdf>
Organization RB RTOP 522-81-14
- 805** Prosser, W. H.; Kim, J.; and Rokhlin, S.: Comparison of FE Models and Simulated AE Signals Acquired With a Resonant Transducer in a Tensile Coupon Specimen. Presented at 43rd Meeting of the Acoustic Emission Working Group, July 18-20, 2000, Seattle, Washington.
Organization RC RTOP 522-62-21
- 806** Rizzi, S. A.; Rackl, R. G.; and Andrianov, E. V.: Flight Test Measurements From the Tu-144LL Structure/Cabin Noise Experiment. NASA/TM-2000-209858, January 2000, 200 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209858.pdf>
Organization RB RTOP 537-06-37
- 807** Rizzi, S. A.; Rackl, R. G.; and Andrianov, E. V.: Flight Test Measurements From the Tu-144LL Structure/Cabin Noise Follow-On Experiment. NASA/TM-2000-209859, February 2000, 102 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209859.pdf>
Organization RB RTOP 537-06-37
- 808** Robinson, J. H.: Evaluation of a Genetic Algorithm for the Shape Optimization of a Cylindrical Shell for Interior Noise. Presented at 8th AIAA/NASA/USAF/ISSMO Multidisciplinary Analysis and Optimization Symposium, September 6-8, 2000, Long Beach, California. AIAA Paper No. 2000-4743.
Organization RB RTOP 706-13-11

- 809** Robinson, J. H.: Modal Convergence of the Nonlinear Vibration of a Tapered Beam. Presented at 18th International Modal Analysis Conference, February 7-10, 2000, San Antonio, Texas.
 Organization RB RTOP 538-03-14
- 810** Santa Maria, O. L.: Noise Abatement Flight Test of the XV-15 Tiltrotor. Presented at AIAA 38th Aerospace Sciences Meeting and Exhibit, January 10-13, 2000, Reno, Nevada.
 Organization RB RTOP 538-07-15
- 811** Seiner, J. M.; and Gilinsky, M. M.: Undulated Nozzle for Enhanced Exit Area Mixing. U. S. Patent 6,082,635. Issued July 4, 2000.
 Organization RB
- 812** Senzig, D. A.; Fleming, G. G.; and Clarke, J. B.: Lateral Attenuation of Aircraft Sound Levels Over an Acoustically Hard Water Surface: Logan Airport Study. (L-68924D U.S. Department of Transportation and Massachusetts Institute of Technology.) NASA/CR-2000-210127, DOT-VNTSC-NASA-00-01, May 2000, 99 p.
 Organization RB RTOP 522-81-15
- 813** Sullivan, B. M.; Davis, M. W.; Young, D.; MacMartin, D. G.; and Millott, T.: Study of Human Response to Helicopter Interior Noise. Presented at 139th Meeting of the Acoustical Society of America, May 30–June 3, 2000, Atlanta, Georgia.
 Organization RB RTOP 522-81-14
- 814** Wat, J. K.; Yamamoto, K. J.; and Golub, R. A.: Jet Shock Noise at High Subsonic Flight. Presented at 6th AIAA/CEAS Aeroacoustics Conference, June 12-14, 2000, Lahaina, Hawaii. AIAA Paper No. 2000-1957.
 Organization RB RTOP 522-81-16
- 815** Watson, W. R.: Three-Dimensional Nacelle Aeroacoustics Code With Application to Impedance Eduction. Presented at 6th AIAA/CEAS Aeroacoustics Conference, June 12-14, 2000, Lahaina, Hawaii. AIAA Paper No. 2000-1956.
 Organization RB RTOP 522-81-12

Category 72 Atomic and Molecular Physics

- 816** Aoaeh, B.; Abebe, Y.; Mantz, A. W.; Ball, C. D.; De Lucia, F. C.; Benner, D. C.; and Smith, M. A.: Lead Salt Semiconductor Laser Emission Lineshape Analysis. Presented at 55th International Symposium on Molecular Spectroscopy, June 12-16, 2000, Columbus, Ohio.
 Organization RE RTOP 622-67-65
- 817** Aoaeh, B.; Kolodziejksi, N.; Mantz, A. W.; Benner, D. C.; Devi, V. M.; Smith, M. A.; Ball, C. D.; and De Lucia, F. C.: Measurements of 1-0 Band of Carbon Monoxide at Temperatures Between 11 and 296 Kelvins. Presented at 55th International Symposium on Molecular Spectroscopy, June 12-16, 2000, Columbus, Ohio.
 Organization RE RTOP 622-67-65

- 818** Benner, D. C.; Devi, V. M.; Brown, L. R.; Smith, M. A.; and Rinsland, C. P.: Line Mixing in the Triad of $^{12}\text{CH}_3\text{D}$. Presented at 55th International Symposium on Molecular Spectroscopy, June 12-16, 2000, Columbus, Ohio.
Organization RE RTOP 622-67-65
- 819** Benner, D. C.; Devi, V. M.; and Smith, M. A.: Characterization of the ν_3 Band of Methane. Presented at Sixth Biennial HITRAN Conference, June 19-21, 2000, Cambridge, Massachusetts.
Organization RE RTOP 622-67-65
- 820** Benner, D. C.; Devi, V. M.; Smith, M. A.; Rinsland, C. P.; Guelachvili, G.; Picque, N.; and Brown, L. R.: Temperature Dependence of Line Mixing in the P Branch of the ν_3 Band of Methane. Presented at 55th International Symposium on Molecular Spectroscopy, June 12-16, 2000, Columbus, Ohio.
Organization RE RTOP 622-67-65
- 821** Brown, L. R.; Devi, V. M.; Benner, D. C.; Smith, M. A.; Rinsland, C. P.; and Sams, R. L.: Analysis of Self-Broadened Spectra in the ν_5 and ν_6 Fundamental of Bands of $^{12}\text{CH}_3\text{D}$. Presented at 55th International Symposium on Molecular Spectroscopy, June 12-16, 2000, Columbus, Ohio.
Organization RE RTOP 622-67-65
- 822** Devi, V. M.; Benner, D. C.; Smith, M. A.; Rinsland, C. P.; and Brown, L. R.: Measurements of Air Broadening, Pressure Shifting and Off Diagonal Relaxation Matrix Coefficients in the ν_3 Band of $^{12}\text{CH}_3\text{D}$. *Journal of Molecular Structure*, Volume 517, No. 1, 2000, p. 455-475.
Organization RE RTOP 622-67-65
- 823** Devi, V. M.; Benner, D. C.; Smith, M. A.; Rinsland, C. P.; Brown, L. R.; and Sams, R. L.: Nitrogen Broadening and Shift Coefficients in the ν_5 and ν_6 Fundamental Bands of $^{12}\text{CH}_3\text{D}$. Presented at 55th International Symposium on Molecular Spectroscopy, June 12-16, 2000, Columbus, Ohio.
Organization RE RTOP 622-67-65
- 824** Mantz, A. W.; Kolodziejjski, N.; Aoaeh, B.; Benner, D. C.; Devi, V. M.; Smith, M. A.; Ball, C. D.; and De Lucia, F. C.: Measurements of the $R(0)$ Line in the 1-0 Band of Carbon Monoxide at Temperatures Between 11 and 296 Kelvins. Presented at PRAHA 2000 The 16th International Conference on High Resolution Molecular Spectroscopy, September 3-7, 2000, Prague, Czechoslovakia.
Organization RE RTOP 622-67-65

- 825** Mantz, A. W.; Kolodziejski, N.; Gobeille, R.; Benner, D. C.; Devi, V. M.; and Smith, M. A.: Some Preliminary Results of a Simultaneous Analysis of an RQ(J,O) Q Branch in Methyl Fluoride at 1475 Wavenumbers. Presented at PRAHA 2000 The 16th International Conference on High Resolution Molecular Spectroscopy, September 3-7, 2000, Prague, Czechoslovakia.
 Organization RE RTOP 622-67-65
- 826** Nikitin, A.; Champion, J. P.; Brown, L. R.; Devi, V. M.; Benner, D. C.; Smith, M. A.; and Tyuterev, V. G.: Line Strengths of CH₃D in the Region 900 - 3500 cm⁻¹. Presented at PRAHA 2000 The 16th International Conference on High Resolution Molecular Spectroscopy, September 3-7, 2000, Prague, Czechoslovakia.
 Organization RE RTOP 622-67-65
- 827** Smith, M. A.; Devi, V. M.; Benner, D. C.; Brown, L. R.; and Sams, R. L.: Air-, N₂ and Self-Broadening and Shift Coefficients and Line Mixing the v₃, v₅ and v₆ Bands of ¹²CH₃D. Presented at Sixth Biennial HITRAN Conference, June 19-21, 2000, Cambridge, Massachusetts.
 Organization RE RTOP 622-67-65
- 828** Smith, M. A.; Rinsland, C. P.; Devi, V. M.; Benner, D. C.; and Brown, L. R.: Nitrogen- and Self-Broadening and Shift Coefficients in the v3 Fundamental Band of ¹²CH₃D. Presented at 55th International Symposium on Molecular Spectroscopy, June 12-16, 2000, Columbus, Ohio.
 Organization RE RTOP 622-67-65
- 829** Smith, M. A.; Rinsland, C. P.; Devi, V. M.; Benner, D. C.; Stephen, T. M.; Goldman, A.; and Perrin, A.: High Resolution Spectra of Isotopic Ozone in the 5 μm Region. Presented at 55th International Symposium on Molecular Spectroscopy, June 12-16, 2000, Columbus, Ohio.
 Organization RE RTOP 622-67-65

Category 74 Optics

- 830** Balla, R. J.; and Exton, R. J.: Density Measurements in Air by Optically Exciting the I₂ Cordes Bands. *Measurement Science and Technology*, Volume 11, No. 5, May 2000, p. 459-466.
 Organization RB RTOP 522-31-11
- 831** Balla, R. J.; and Exton, R. J.: Thermometry in Air by Optically Exciting the I₂ Cordes Bands. *Measurement Science and Technology*, Volume 11, No. 9, September 2000, p. 1319-1327.
 Organization RB RTOP 522-31-11

- 832** Balla, R. J.; and Herring, G. C.: Raman Shifting a Tunable ArF Excimer Laser to Wavelengths of 190 to 240 nm With a Forced Convection Raman Cell. NASA/TM-2000-209710, April 2000, 54 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209710.pdf>
Organization RB RTOP 522-31-61
- 833** Balla, R. J.; and Herring, G. C.: Raman Shifting a Tunable ArF Laser to Wavelengths of 190-240 nm. *Review of Scientific Instruments*, Volume 71, No. 5, May 2000, p. 2246-2247.
Organization RB RTOP 522-31-61
- 834** De Young, R. J.; and Youssef, A.: Narrow Band Fiber Bragg Gratings for Water Vapor DIAL Receiver Applications. Presented at 20th International Laser Radar Conference, July 10-14, 2000, Vichy, France. In Proceedings.
Organization RE RTOP 622-63-13
- 835** Froggatt, M. E.; Childers, B. A.; Moore, J. P.; Wu, M-C.; Bly, J.; Thomas, M.; Rogowski, R. S.; Bennett, J. E.; and Sickler, J.: Very High Density Fiber-Optic Strain Sensing for Structures, Test Articles, and Materials. Presented at Ninth Annual Research Symposium of the American Society for Nondestructive Testing, March 27-31, 2000, Birmingham, Alabama.
Organization RC RTOP 242-90-61
- 836** Froggatt, M. E.; Moore, J. P.; and Erdogan, T.: Full Complex Transmission and Reflection Characterization of a Bragg Grating in a Single Laser Sweep. Presented at Optical Fiber Communication Conference, March 5-10, 2000, Baltimore, Maryland.
Organization RC RTOP 242-82-61
- 837** Froggatt, M. E.; Wu, M-C.; and Erdogan, T.: Visualization of Fringes in Holographic Apparatus for Fiber Bragg Grating Fabrication Using a Phase Mask. Presented at Optical Fiber Communication Conference, March 5-10, 2000, Baltimore, Maryland.
Organization RC RTOP 242-82-61
- 838** Hare, D. A.; and Moore, T. C., Sr.: Characteristics of Extrinsic Fabry-Perot Interferometric (EFPI) Fiber-Optic Strain Gages. Presented at Western Regional Strain Gage Committee Conference, February 1-2, 2000, Simi Valley, California.
Organization RB RTOP 522-63-31
- 839** Herring, G. C.; and Hillard, M. E., Jr.: Flow Visualization by Elastic Light Scattering in the Boundary Layer of a Supersonic Flow. NASA/TM-2000-210121, August 2000, 28 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210121.pdf>
Organization RB RTOP 522-31-61
- 840** Koble, A.; and De Young, R. J.: A New Method for Reduction of Photomultiplier Signal-Induced Noise. NASA/TM-2000-209836, January 2000, 27 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209836.pdf>
Organization RE RTOP 274-00-99

- 841** Lopatin, C. M.; Froggatt, M. E.; Childers, B. A.; and Rogowski, R. S.: Distributed Measurement of Strain Using Rayleigh Scattering in Single Mode Optical Fibers—Application to Smart Materials. Presented at 32nd International SAMPE Technical Conference, November 5-9, 2000, Boston, Massachusetts.

Organization RC RTOP 522-63-41

Category 75 Plasma Physics

- 842** Cambier, J-L.; and Micheletti, D. A.: Theoretical Analysis of the Electron Spiral Toroid Concept. (L-8871 MSE Technology Applications, Inc.) NASA/CR-2000-210654, December 2000, 42 p.

<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210654.pdf>

Organization A RTOP 522-17-41

- 843** Lofftus, D.; Lund, T.; and Rote, D.: High-Lift Flight Tunnel—Phase II Report. (L-8871 MSE Technology Applications, Inc.) NASA/CR-2000-210653, December 2000, 91 p.

<http://techreports.larc.nasa.gov/ltrs/PDF/2000/cr/NASA-2000-cr210653.pdf>

Organization A RTOP 522-17-41

Category 76 Solid-State Physics

- 844** Barnes, J. C.: Solid State Laser Development for Lidar Application. Presented at 13th Workshop on Advanced Topics in Luminescence Spectroscopy, July 23-27, 2000, Erico, Italy.

Organization RF RTOP 258-70-21

- 845** Barnes, N. P.; Walsh, B. M.; Reichle, D. J., Jr.; and Hutcheson, R. L.: Normal Mode and Q-Switched 0.946 μm Oscillator and Amplifier With Second and Third Harmonic Generation. Presented at Advanced Solid State Lasers Conference, February 13-16, 2000, Davos, Switzerland.

Organization RF RTOP 258-70-21

- 846** Campbell, R. E.; Edwards, W. C.; Barnes, J. C.; Storm, M. E.; Petway, L. B.; Marsh, W. D.; and Chen, S.: Solid State UV Laser Development for the Remote Sensing of Ozone From Space. Presented at Photonics North 2000 International Conference on Applications of Photonic Technology, June 12-16, 2000, Quebec, Canada.

Organization RF RTOP 258-70-21

- 847** Edwards, W. C.; Chen, S.; Petway, L. B.; Marsh, W. D.; Storm, M. E.; and Barnes, J. C.: A Novel High Efficient Laser Transmitter Design for a Space-Borne Ozone Differential Absorption Lidar (DIAL). Presented at SPIE's 2nd International Asia-Pacific Symposium on Remote Sensing of the Atmosphere, Environment, and Space, October 9-12, 2000, Sendai, Japan.

Organization RF RTOP 622-29-26

- 848** Petros, M.; Yu, J.; Singh, U. N.; and Barnes, N. P.: High Energy Directly Pumped Ho:YLF Laser. Presented at Advanced Solid State Lasers Conference, February 13-16, 2000, Davos, Switzerland.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-asslc-mp.pdf>
Organization RF RTOP 258-70-21
- 849** Walsh, B. M.; Barnes, N. P.; Hutcheson, R. L.; and Equall, R. W.: A Comparative Study of Nd-Doped Mixed Garnet Laser Materials for Application to 0.94 μm Lasers. Presented at CLEO/QELS 2000—Conference on Lasers and Electro-Optics Quantum Electronics and Laser Science, May 7-12, 2000, San Francisco, California.
Organization RF RTOP 258-70-21
- 850** Yu, J.; Petros, M.; Singh, U. N.; Barnes, J. C.; and Barnes, N. P.: An Efficient Double Pulsed 2-Micron Laser for DIAL Applications. Presented at 20th International Laser Radar Conference, July 10-14, 2000, Vichy, France.
Organization RF RTOP 258-70-21
- 851** Yu, J.; Petros, M.; Singh, U. N.; and Barnes, N. P.: An Efficient End-Pumped Ho:Tm:YLF Disk Amplifier. Presented at Advanced Solid State Lasers Conference, February 13-16, 2000, Davos, Switzerland.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-asslc-jy.pdf>
Organization RF RTOP 258-70-21
- 852** Yu, J.; Singh, U. N.; Barnes, N. P.; Barnes, J. C.; Petros, M.; and Phillips, M. W.: An All Solid-State 2- μm Laser System for Space Coherent Wind Lidar. Presented at 2000 IEEE Aerospace Conference: Gateway to 21st Century Technology, March 18-25, 2000, Big Sky, Montana.
Organization RF RTOP 258-70-21

Category 77 Thermodynamics and Statistical Physics

- 853** Cramer, K. E.; and Winfree, W. P.: Application of the Thermal Line Scanner to Quantify Material Loss Due to Corrosion. Presented at Thermosense XXII, April 24-28, 2000, Orlando, Florida.
Organization RC RTOP 706-12-21
- 854** Cramer, K. E.; and Winfree, W. P.: Thermographic Imaging of Material Loss in Boiler Waterwall Tubing by Application of Scanning Line Source. Presented at SPIE's 5th International Symposium on NDE and Health Monitoring of Aging Infrastructure, March 5-9, 2000, Newport Beach, California.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-5spie-kec.pdf>
Organization RC RTOP 522-18-11
- 855** Winfree, W. P.; and Cramer, K. E.: Reduction of Thermal Data Using Neural Networks. Presented at Thermosense XXII, April 24-28, 2000, Orlando, Florida.
Organization RC RTOP 522-18-11

Social Sciences

Category 80 Social Sciences (General)

- 856** Marable, W. P.; and Murray, D. B. (Compilers): 2000 NASA-HU American Society for Engineering Education (ASEE) Summer Faculty Fellowship Program. (NCC-1-358 Hampton University.) NASA/CR-2000-210327, September 2000, 113 p.
Organization SH
- 857** Pinelli, T. E.; Frank, K. L.; and Waheed, M.: NASA CONNECT: Three Years After the First Broadcast. Presented at Telecon East 2000, March 1-3, 2000, Washington, DC.
Organization SH RTOP 282-10-08
- 858** Prior, E. J.; Pinelli, T. E.; Starr, R. M.; and Massenberg, S. E.: New Distance Learning Approaches to Remote Sensing Education. Presented at IEEE International Geoscience and Remote Sensing Symposium 2000, July 24-28, 2000, Honolulu, Hawaii.
Organization SH RTOP 282-10-08
- 859** Tiwari, S. N.; and Murray, D. B. (Compilers): 1999 NASA-ODU American Society for Engineering Education (ASEE) Summer Faculty Fellowship Program. (NGT-1-52208 Old Dominion University.) NASA/CR-2000-210092, August 2000, 112 p.
Organization SH

Category 82 Documentation and Information Science

- 860** Anderson, C. J.; Glassman, M.; and Pinelli, T. E.: A Comparison of Communications Practices Among Indian and U.S. Scientists and Engineers. *Journal of East-West Business*, Volume 6, No. 1, 2000, p. 81-108.
Organization SH RTOP 332-18-10
- 861** Kaplan, N. R.; and Nelson, M. L.: Determining the Publication Impact of a Digital Library. *Journal of the American Society of Information*, Volume 51, No. 4, 2000, p. 324-339.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/jp/NASA-2000-jasis-nrk.pdf>
Organization SL RTOP 992-16-05
- 862** Nelson, M. L.: Digital Library of NACA Reports. NASA Tech Brief L-17844, December 2000.
Organization RF
- 863** Pinelli, T. E.; Frank, K. L.; and House, P. L.: Evaluating the Effectiveness of the 1998-1999 NASA CONNECT Program. NASA/TM-2000-210542, September 2000, 53 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm210542.pdf>
Organization SH RTOP 332-18-10

- 864** Rocker, J.: Technical Information. *Aerospace America*, Volume 38, No. 12, December 2000, p. 84.
Organization SL RTOP 282-30-10
- 865** Steeman, G. A.; and Connell, C. J.: Do-it-Yourself: A Special Library's Approach to Creating Dynamic Web Pages Using Commercial Off-the-Shelf Applications. Presented at 21st Annual National Online Meeting, May 16-18, 2000, New York, New York.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-21anom-gas.pdf>
Organization SL RTOP 282-30-10
- 866** Stewart, S. H.; and Machie, H. B. (Compilers): NASA Langley Scientific and Technical Information Output—1999. NASA/TM-2000-209852, February 2000, 179 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tm/NASA-2000-tm209852.pdf>
Organization SL RTOP 282-30-10
- 867** Van de Sompel, H.; Krichel, T.; Nelson, M. L.; Hochstenbach, P.; Lyapunov, V. M.; Maly, K.; Zubair, M.; Kholief, M.; and Liu, X-M.: The UPS Prototype: An Experimental End-User Service Across E-Print Archives. *D-Lib Magazine*, Volume 6, No. 2, February 2000.
Organization RF RTOP 992-16-05

Category 83 Economics and Cost Analysis

- 868** Malone, J. B.: Intelligent Synthesis Environment—Revolutionizing NASA's Engineering and Science Processes. Presented at Space Systems Cost Analysis Group Meeting, Noordwijk, Netherlands, May 12, 2000.
Organization OI RTOP 297-90-00
- 869** Piland, W. M.; Pine, D. J.; and Wilson, D. M.: Improving the Discipline of Cost Estimation and Analysis. Presented at 51st International Astronautical Congress, October 2-6, 2000, Rio de Janeiro, Brazil. Paper No. IAA-00-IAA.1.1.01.
Organization AH RTOP 297-90-00
- 870** Pine, D. J.: IPAO—NASA Lead for Cost Estimating & Analysis. Presented at Space Systems Cost Analysis Group Meeting, May 11, 2000, Noordwijk, Netherlands.
Organization AH RTOP 297-90-00
- 871** Pine, D. J.: New Ways of Doing Business—Fact or Fiction. Presented at Space Systems Cost Analysis Group Meeting, May 11, 2000, Noordwijk, Netherlands.
Organization AH RTOP 297-90-00

Space Sciences

Category 88 Space Sciences (General)

- 872 Doggett, W. R.; Messner, W. C.; and Juang, J-N.: Multiple Center of Mass Space Images of Single Objects and Their Impact on Path Planning. *International Journal of Robotics Research*, Volume 19, No. 9, September 2000, p. 848-856.
Organization RD RTOP 519-31-61
- 873 Doggett, W. R.; and Vazquez, S. L.: An Architecture for Real-Time Interpretation and Visualization of Structural Sensor Data in a Laboratory Environment. Presented at 19th Digital Avionics Systems Conference, October 7-13, 2000, Philadelphia, Pennsylvania. In Proceedings, Paper No. 6D2.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-19dasc-wrd.pdf>
Organization RD RTOP 519-31-61

Category 91 Lunar and Planetary Exploration

- 874 Gupta, R. N.: Aerothermodynamic Analysis of Stardust Sample Return Capsule With Coupled Radiation and Ablation. *Journal of Spacecraft and Rockets*, Volume 37, No. 4, July–August 2000, p. 507-514.
Organization RB RTOP 242-80-01
- 875 Munk, M. M.; and Powell, R. W.: Aeroassist Technology Planning for Exploration. Presented at 10th AAS/AIAA Space Flight Mechanics Meeting, January 24-26, 2000, Clearwater, Florida. AAS Paper No. 00-169.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-10ass-mmm.pdf>
Organization RA RTOP 953-20-00
- 876 Pastor, P. R.; Bishop, R. H.; and Striepe, S. A.: Evaluation of Mars Entry Reconstructed Trajectories Based on Hypothetical “Quick-Look” Entry Navigation Data. Presented at 10th AAS/AIAA Space Flight Mechanics Meeting, January 24-26, 2000, Clearwater, Florida. AAS Paper No. 00-197.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-10aas-prp.pdf>
Organization RA RTOP 953-20-00
- 877 Prior, E. J.; and Braun, R. D.: Mars Exploration. Presented at Institute of Irish Mechanical Engineers, November 16, 2000, Dublin, Ireland.
Organization SH RTOP 282-10-08

Category 93 Space Radiation

- 878** Blatnig, S. R.; Swaminathan, S. R.; Kruger, A. T.; Ngom, M.; Norbury, J. W.; and Tripathi, R. K.: Parameterized Cross Sections for Pion Production in Proton-Proton Collisions. NASA/TP-2000-210640, December 2000, 85 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp210640.pdf>
Organization RC RTOP 101-21-23
- 879** Clowdsley, M. S.; Wilson, J. W.; Heinbockel, J. H.; Tripathi, R. K.; Singletary, R. C., Jr.; and Shinn, J. L.: An Improved Elastic and Nonelastic Neutron Transport Algorithm for Space Radiation. NASA/TP-2000-210299, July 2000, 40 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp210299.pdf>
Organization RC RTOP 101-21-23
- 880** Cucinotta, F. A.; Cherubini, R.; Nikjoo, H.; and Wilson, J. W.: Implications of Theoretical and Experimental Studies of Radiation Quality for Risk Assessment in Space. Presented at 33rd COSPAR Scientific Assembly, July 16-23, 2000, Warsaw, Poland.
Organization RC RTOP 101-21-23
- 881** Curtis, S. B.; Vazquez, M. E.; Wilson, J. W.; Atwell, W.; and Kim, M. Y.: Cosmic Ray Hits in the Central Nervous System at Solar Maximum. *Advances in Space Research*, Volume 25, No. 10, May 2000, p. 2035-2040.
Organization RC RTOP 632-84-01
- 882** Heinbockel, J. H.; Clowdsley, M. S.; and Wilson, J. W.: An Improved Neutron Transport Algorithm for Space Radiation. NASA/TP-2000-209865, March 2000, 35 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp209865.pdf>
Organization RC RTOP 101-15-01
- 883** Kim, M-H.; Thibeault, S. A.; Wilson, J. W.; Heilbronn, L. H.; Kiefer, R. L.; Weakley, J. A.; Dueber, J. L.; Fogarty, T.; and Wilkins, R.: Radiation Protection Using Martian Surface Materials in Human Exploration of Mars. Presented at 1st International Workshop on Space Radiation Research, May 28-31, 2000, Arona, Italy.
Organization RC RTOP 632-64-00
- 884** Kim, M-H.; and Wilson, J. W.: Examination of Solar Cycle Statistical Model and New Prediction of Solar Cycle 23. NASA/TP-2000-210536, October 2000, 18 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp210536.pdf>
Organization RC RTOP 632-84-01
- 885** Saganti, P. B.; Zapp, E. N.; Wilson, J. W.; and Cucinotta, F. A.: Visual Assessment of the Radiation Distribution in the ISS Lab Module. Presented at 1st International Workshop on Space Radiation Research, May 28-31, 2000, Arona, Italy.
Organization RC RTOP 101-23-21

- 886** Schimmerling, W.; Cucinotta, F. A.; and Wilson, J. W.: Space Radiation Risk for Interplanetary Travel. Presented at 33rd COSPAR Scientific Assembly, July 16-23, 2000, Warsaw, Poland.
Organization RC RTOP 632-84-01
- 887** Shavers, M. R.; Cucinotta, F. A.; Miller, J.; Zeitlin, C. J.; Heilbronn, L. H.; Wilson, J. W.; and Singleterry, R. C., Jr.: Shielded-Heavy-Ion Environment Linear Detector (SHIELD) Experiment: An Experiment for the Radiation and Technology Demonstration (RTD) Mission. Presented at 1st International Workshop on Space Radiation Research, May 28-31, 2000, Arona, Italy.
Organization RC RTOP 101-23-21
- 888** Singleterry, R. C., Jr.: Overview of Space Nuclear Technologies and the American Nuclear Society. Presented at 2000 Annual Meeting of the American Nuclear Society, June 4-8, 2000, San Diego, California. In Proceedings.
Organization RC RTOP 101-21-23
- 889** Singleterry, R. C., Jr.: Space Nuclear Science and Technology. Presented at American Nuclear Society Teacher's Workshop on Nuclear Science and Technology, November 11, 2000, Bethesda, Maryland.
Organization RC RTOP 101-21-23
- 890** Singleterry, R. C., Jr.; and Thibeault, S. A.: Air and Spacecraft Shielding Materials Optimization Analysis. Presented at RPS 2000—Radiation Protection for Our National Priorities: Medicine, the Environment and the Legacy, September 17-21, 2000, Spokane, Washington.
Organization RC RTOP 101-21-23
- 891** Singleterry, R. C., Jr.; and Thibeault, S. A.: Materials for Low-Energy Neutron Radiation Shielding. NASA/TP-2000-210281, June 2000, 19 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp210281.pdf>
Organization RC RTOP 101-15-01
- 892** Singleterry, R. C., Jr.; Wilson, J. W.; Shinn, J. L.; Tripathi, R. K.; and Thibeault, S. A.; *et al.*: Creation and Utilization of a World Wide Web Based Space Radiation Effects Code: SIREST. Presented at 1st International Workshop on Space Radiation Research, May 28-31, 2000, Arona, Italy.
Organization RC RTOP 101-21-23
- 893** Tessler, A.; Dambach, M. L.; and Oplinger, D. W.: Efficient Adaptive Mesh Refinement Modeling of Adhesive Joints. Presented at American Society for Composites 15th Annual Technical Conference, September 24-27, 2000, College Station, Texas.
Organization RC RTOP 101-21-23

- 894** Tripathi, R. K.; Cucinotta, F. A.; and Wilson, J. W.: Nuclear Fragmentation Models—Their Relevance and Applications to Space Missions. Presented at Seventh International Conference on Nucleus-Nucleus Collisions, July 3-7, 2000, Strasbourg, France.
Organization RC RTOP 101-21-23
- 895** Tripathi, R. K.; Cucinotta, F. A.; and Wilson, J. W.: Proton-Nucleus Absorption and Total Cross Sections in Coupled-Channel Approach. Presented at American Physical Society April 2000 Meeting, April 29–May 2, 2000, Long Beach, California.
Organization RC RTOP 101-21-23
- 896** Tripathi, R. K.; Wilson, J. W.; and Cucinotta, F. A.: Proton-Nucleus Total Cross Sections in Coupled-Channel Approach. NASA/TP-2000-210534, October 2000, 15 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp210534.pdf>
Organization RC RTOP 101-21-23
- 897** Tripathi, R. K.; Wilson, J. W.; and Cucinotta, F. A.: Proton-Nucleus Elastic Scattering Cross Sections in Multiple Scattering Approach. Presented at American Physical Society Annual Fall Meeting of the Division of Nuclear Physics, October 4-7, 2000, Williamsburg, Virginia.
Organization RC RTOP 101-21-23
- 898** Tripathi, R. K.; Wilson, J. W.; Shinn, J. L.; Singleterry, R. C., Jr.; Clowdsley, M. S.; Cucinotta, F. A.; Badhwar, G. D.; Kim, M. Y.; Badavi, F. F.; Heinbockel, J. H.; Miller, J.; Zeitlin, C. J.; and Heilbronn, L. H.: Protection From Space Radiation. Presented at 2000 Annual Meeting of the American Nuclear Society, June 4-8, 2000, San Diego, California.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-amans-rkt.pdf>
Organization RC RTOP 101-21-23
- 899** Wilson, J. W.: Overview of Radiation Environments and Human Exposures. *Health Physics*, Volume 79, No. 5, November 2000, p. 470-494.
Organization RC RTOP 537-09-21
- 900** Wilson, J. W.; Clowdsley, M. S.; Shinn, J. L.; Singleterry, R. C., Jr.; Tripathi, R. K.; Cucinotta, F. A.; Heinbockel, J. H.; Badavi, F. F.; and Atwell, W.: Neutrons in Space: Shield Models and Design Issues. Presented at 30th International Conference on Environmental Systems, July 10-13, 2000, Toulouse, France. Paper No. 00ICES-377.
Organization RC RTOP 101-21-23
- 901** Wilson, J. W.; Cucinotta, F. A.; Kim, M-H.; and Schimmerling, W.: Optimized Shielding for Space Radiation Protection. Presented at 1st International Workshop on Space Radiation Research, May 28-31, 2000, Arona, Italy.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-1iwrss-jww.pdf>
Organization RC RTOP 406-10-00

- 902** Wilson, J. W.; Cucinotta, F. A.; Tripathi, R. K.; Clowdsley, M. S.; Shinn, J. L.; Singletary, R. C., Jr.; Thibeault, S. A.; Kim, M-H.; Heinbockel, J. H.; Badhwar, G. D.; Badavi, F. F.; Miller, J.; Zeitlin, C. J.; and Heilbronn, L. H.: Improved Spacecraft Materials for Radiation Protection—Shield Materials Optimization and Testing. Presented at Microgravity Materials Science Conference, June 6-8, 2000, Huntsville, Alabama.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/mtg/NASA-2000-mmse-jww.pdf>
Organization RC RTOP 101-21-23
- 903** Wilson, J. W.; Shinn, J. L.; Tripathi, R. K.; Singletary, R. C., Jr.; Clowdsley, M. S.; Thibeault, S. A.; Cheatwood, F. M.; Schimmerling, W.; Cucinotta, F. A.; Badhwar, G. D.; Noor, A. K.; Kim, M. Y.; Badavi, F. F.; and Heinbockel, J. H.: Issues in Deep Space Radiation Protection. Presented at 13th IAA Humans in Space Symposium, May 20-26, 2000, Santorini, Greece.
Organization RC RTOP 101-21-23
- 904** Wilson, J. W.; and Tai, H.: Range and Energy Straggling in Ion Beam Transport. NASA/TP-2000-209864, March 2000, 14 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2000/tp/NASA-2000-tp209864.pdf>
Organization RC RTOP 111-10-95
- 905** Wilson, J. W.; Tripathi, R. K.; Cucinotta, F. A.; and Norbury, J. W.: Nuclear Physics Issues in Radiation Shielding Assessment. Presented at American Physical Society Annual Fall Meeting of the Division of Nuclear Physics, October 4-7, 2000, Williamsburg, Virginia.
Organization RC RTOP 406-10-00

General

Category 99 General

- 906** Anon.: Langley Research Highlights—1999. NASA/TM-2000-210285, August 2000, 66 p.
<http://larcpubs.larc.nasa.gov/randt/1999>
Organization SH

Author Index

A

Abbott, T. S.: 80
Abdol-Hamid, K. S.: 50
Abebe, Y.: 816
Ackerman, S. A.: 593
Ackerman, T. P.: 607
Agte, J. S.: 144, 145
Ahuja, K. K.: 764, 765, 766, 767, 768
Akogyeram, R.: 488
Al-Hajjah, A.: 586, 627, 628, 630, 651, 653, 655, 669, 670, 677
Al-Saadi, J. A.: 6, 526, 552, 576
Al-Theneyan, A.: 691
Albrecht, B. A.: 587, 682
Alexandrov, N. M.: 100, 722, 723, 752, 753, 754
Allan, B. G.: 362, 724
Allen, J. M.: 16
Allen, M.: 572
Allison, S. G.: 441
Alter-Gartenberg, R.: 425, 533
Ambur, D. R.: 121, 227, 304, 459, 492, 505
Amer, T. R.: 436
Amthauer, E.: 667
Amundsen, R. M.: 187, 188
Anders, J. B., Jr.: 9
Anderson, B. E.: 532, 551, 588
Anderson, C. J.: 860
Anderson, G. S.: 796
Anderson, W. K.: 692, 723
Andrews, E. H.: 157
Andrianov, E. V.: 806, 807
Angster, S.: 202
Anon.: 456, 457, 689, 704, 906
Antaki, J. F.: 337
Antcliff, R. R.: 10
Antol, J.: 203
Aoaeh, B.: 816, 817, 824
Arbocz, J.: 460
Arduini, R. F.: 597, 619, 680
Arendt, C. P.: 294
Arian, E.: 725
Armstrong, C. D.: 349, 360, 361
Arnold, A.: 667
Arrington, G. L.: 223

Arya, S. P.: 59, 68
Asbury, S. C.: 11
Atwell, W.: 881, 900
Auslender, A. H.: 363, 404
Avery, M. A.: 551, 588
Axenson, T. J.: 442
Ayala-Rincon, M.: 693
Ayers, J. K.: 639, 640, 647, 682

B

Bacon, B. J.: 161, 162
Badavi, F. F.: 54, 898, 900, 902, 903
Badhwar, G. D.: 898, 902, 903
Bagwell, D. R.: 61
Bailey, M. L.: 163, 164
Baker, D. J.: 461, 462, 463
Ball, C. D.: 816, 817, 824
Balla, R. J.: 381, 382, 424, 830, 831, 832, 833
Bangert, L. S.: 4
Banks, D. W.: 12
Banks, H. T.: 736
Bao, H.: 155, 204
Barkstrom, B. R.: 586, 589, 590, 627, 651, 653, 654, 669, 670, 677
Barnes, J. C.: 445, 453, 844, 846, 847, 850, 852
Barnes, N. P.: 442, 443, 444, 450, 453, 845, 848, 849, 850, 851, 852
Barnwell, R. W.: 19
Baroth, E.: 194
Barrick, J. D.: 588, 615, 623
Bartels, R. E.: 13, 14, 15, 137
Barthelemy, J-F.: 146, 148
Bartlett, J. E.: 350
Bartram, S. M.: 440
Barut, A.: 464
Baty, R. S.: 780
Bauchau, O. A.: 726, 727
Bauer, S. X.: 51, 52
Baum, B. A.: 591, 592, 593, 594
Beard, R. E.: 69
Beck, F. B.: 97, 99, 346, 347
Beeler, G. B.: 23, 350
Belvin, H. L.: 308

- Bement, L. J.: 101, 205, 206, 220
Benner, D. C.: 816, 817, 818, 819, 820, 821,
 822, 823, 824, 825, 826, 827, 828, 829
Bennett, J. E.: 835
Bennett, R. L.: 119, 120
Bennett, R. M.: 102, 103, 136, 137
Berezin, C.: 798
Bergwerff, J. B.: 554
Berry, J. D.: 57
Berry, S. A.: 363, 364, 365, 384
Bess, T. D.: 595, 654
Betts, J. F.: 769, 782
Beugham, G. E.: 656
Bevilacqua, R. M.: 6, 615, 623
Bhat, M. K.: 30, 31
Bhatia, K. G.: 747
Bhatt, P. P.: 553, 577
Biedron, R. T.: 147, 148
Bingham, G. E.: 657, 658, 659
Bir, P. J.: 114
Birch, T. J.: 16
Bird, R. K.: 257, 258
Bishop, R. H.: 876
Bittner, R. D.: 24, 27
Blanchard, R. C.: 366
Blatherwick, R. S.: 578
Blattnig, S. R.: 878
Bloodgood, V. D., Jr.: 338, 341
Blosser, M. L.: 193
Bly, J.: 835
Bobbitt, C. W.: 17
Bodeker, G. E.: 554
Boersma, K. F.: 554
Bogart, E. H.: 685
Bohnhoff-Hlavacek, G. L.: 321
Boitnott, R. L.: 104, 109
Bolton, W.: 666
Bond, N. A.: 587
Bottasso, C. L.: 726, 727, 728
Bounajem, E.: 18
Bowles, R. L.: 77
Boyd, D. D., Jr.: 19, 772
Boyd, I. S.: 554
Boyd, W. E.: 506
Boyden, R. P.: 173
Brackett, V. G.: 521, 555, 556, 614, 615, 621,
 622, 623
Bradley, K. A.: 802
Brand, A. G.: 775
Brandon, J. M.: 174
Brandt, A.: 750
Brasseur, G. P.: 563, 564
Brauckmann, G. J.: 43
Braun, R. D.: 192, 877
Brentner, K. S.: 82, 409, 770, 771, 790
Breuer, K. S.: 387, 388, 389
Brewer, W. D.: 258, 265
Brinksma, E. J.: 554
Brinson, L. C.: 225
Britcher, C. P.: 207, 338
Bromberg, L.: 473, 474
Brooks, T. F.: 772, 773, 775
Bowell, E. V.: 521, 522, 526, 555, 556, 560,
 561, 562, 565, 596, 613, 614, 615, 621,
 622, 623, 625
Brown, D.: 787
Brown, D. E.: 724
Brown, K. G.: 256
Brown, L. R.: 818, 820, 821, 822, 823, 826,
 827, 828
Brown, R. W.: 199
Brown, S. B.: 651
Brown, S. M.: 64
Brown, T. L.: 333, 334
Bryant, R. G.: 23, 151, 230, 282, 283, 295,
 310
Bucholtz, A.: 673
Buck, G. M.: 20, 175
Buehrle, R. D.: 774
Buning, P. G.: 18, 21, 22, 37
Burgreen, G.: 337
Burkett, C. G., Jr.: 436
Burley, C. L.: 772, 775
Burner, A. W.: 414, 415, 416, 430
Burris, J.: 521, 556, 620
Burton, S. P.: 534, 535, 536, 537, 539, 540,
 541, 542, 543, 544, 546, 547
Bush, B. C.: 673
Bush, H. G.: 498
Bushnell, D. M.: 367
Busquets, A. M.: 66
Butler, C. F.: 521, 522, 555, 556, 560, 561,
 562
Butler, R. W.: 699, 705

Byrne, C. A.: 298

C

Cabell, R. H.: 469, 776, 784, 800, 801
Cageao, R. P.: 572
Cahoon, D. R., Jr.: 569, 636
Calhoun, P. C.: 189
Calleja, J. C.: 363
Callis, L. B., Jr.: 557, 558
Cambier, J-L.: 842
Campbell, R. E.: 846
Campbell, T. G.: 429
Cano, R. J.: 308
Cantrell, J. H., Jr.: 259, 260, 281
Cardullo, F. M.: 687
Carlson, A. B.: 595
Carreno, V. A.: 702, 714
Cataldi, P.: 764
Cattafesta, L. N., III: 430
Cesnik, C. E.: 149
Chakrapani, V.: 597, 604, 639, 664
Chambers, J. R.: 1
Chambers, L. H.: 598, 599, 600, 611, 617,
 618
Champion, J. P.: 826
Chang, A. C.: 284, 308
Chang, K.: 309
Chapman, G.: 184
Chapman, J. J.: 601
Chappell, A. R.: 70
Charlock, T. P.: 590, 602, 644
Charnock, J. K.: 61
Chawan, A. D.: 226
Cheatwood, F. M.: 184, 185, 903
Chen, F-J.: 23
Chen, G.: 525
Chen, S.: 445, 846, 847
Chen, T-K.: 466, 480
Chen, T.: 481, 482, 729, 743
Chen, Y-C.: 483
Chen, Y.: 668
Chen, Z.: 694
Cherubini, R.: 880
Chiacchio, M.: 665
Childers, B. A.: 421, 441, 835, 841
Chinitz, W.: 156
Chiou, E-W.: 536

Choi, J-Y.: 726, 727
Choi, S. H.: 285, 311, 345
Choudhari, M. M.: 405
Chu, W. P.: 339, 340, 523
Ciardo, G.: 703
Cisewski, M.: 340, 523
Clark, R. L.: 783
Clarke, J. B.: 812
Clayton, M. B.: 556, 614, 615, 621, 622, 623
Cleaveland, R.: 695, 700
Cler, D. L.: 178
Cline, J. H.: 801
Clothiaux, E.: 607, 608
Clowdsley, M. S.: 54, 879, 882, 898, 900,
 902, 903
Cobb, T. Q.: 286
Cockburn, B.: 730, 731
Cockrell, C. E., Jr.: 24, 27
Cockrell, C. R.: 97, 99, 346, 347
Cofer, W. R., III: 568, 569, 570
Cole, S. R.: 105, 106, 142
Collins, R. S.: 350
Collins, T. J.: 214
Collins, W.: 672
Comstock, J. R., Jr.: 71
Connell, C. J.: 865
Connell, J. W.: 287, 288, 289, 290, 291, 292,
 293, 294, 301, 319, 320, 323, 324, 325,
 327
Conner, B. J.: 554
Conner, D. A.: 775, 777
Connor, B. J.: 578
Cook, A. L.: 446
Cooper, E. G.: 55
Cooper, J. B.: 307
Copeland, B. M., Jr.: 230
Corso, L. M.: 125
Costen, R. C.: 298, 336
Costulis, P. K.: 598, 640, 641
Cowan, A. L.: 465
Cox, D. E.: 717, 783
Cox, S. J.: 665
Cox, S. K.: 550
Cox, T. H.: 172
Cramer, K. E.: 756, 762, 853, 854, 855
Crawford, B. L.: 417
Crawford, J. H.: 524, 525

Criss, J. M.: 294, 325
Croom, M. A.: 25
Cruz, V. B.: 435
Cucinotta, F. A.: 683, 688, 880, 885, 886, 887, 894, 895, 896, 897, 898, 900, 901, 902, 903, 905
Culp, A. M.: 69
Cunnold, D. M.: 559
Curran, R. J.: 550
Curry, J. A.: 603
Curry, T. J.: 165
Curtis, S. B.: 881
Cvitkovich, M. K.: 239

D

D'Agostino, M.: 766, 767
D'Ambrosia, C. M.: 256
DalBello, T.: 49
Dambach, M. L.: 893
Daryabeigi, K.: 380
Daugherty, R. H.: 107, 111
David, S. J.: 578
Davila, C. G.: 227, 465, 466, 492
Davis, D. D.: 525
Davis, M. W.: 813
Davis, P. P.: 224, 256
Davis, R. E.: 418, 425, 427
De Haan, J. F.: 554
De Lucia, F. C.: 816, 817, 824
De Young, R. J.: 355, 356, 358, 451, 562, 834, 840
DeLoach, R.: 176, 181, 419, 420
Deaver, L. E.: 553, 577
Dec, J. A.: 187, 188
Decker, W. A.: 777
Deere, K. A.: 26
Degon, B.: 784
Delnore, V. E.: 550
Demoulin, P.: 578
Deng, X.: 254
Denn, F. M.: 595
Desai, P. N.: 185
Deshpande, M. D.: 97, 343, 346, 347
Dever, J.: 320
Devi, V. M.: 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829
Dharamsi, A. N.: 427, 448

Di Vito, B. L.: 699
DiCarlo, D. J.: 85
DiFulvio, M.: 53, 364, 365
Diaz, S. B.: 667
Dicus, D. L.: 257, 265
Dilley, A. D.: 22, 24, 363
Dillman, R. A.: 188
Ding, F.: 68
Dingemans, T. J.: 308
Diskin, B.: 739, 750
Ditkowski, A.: 368
Dixon, D.: 298
Doebling, S. W.: 499, 500, 501
Doelling, D. R.: 597, 604, 624, 636, 637, 639, 647, 648, 664, 673
Doggett, W. R.: 872, 873
Dolan, E. D.: 732
Dolgin, B.: 206
Domack, M. S.: 262, 278, 279
Dong, X.: 605, 606, 607, 608, 619, 646, 673
Dorsey, J. T.: 190
Doyle, J. F.: 778
Doyle, T. M.: 92
Du, J.: 487
Dubberly, M. J.: 297
Dubrulle, B.: 369
Duda, D. P.: 609, 610, 640, 641, 644
Dudley, K. L.: 346, 347, 353
Dueber, J. L.: 883
Duque, E. P.: 49
Durham, M. H.: 140
Dyer, J. E.: 506

E

Echigo, Y.: 329, 330, 331
Eckerman, S.: 6
Eckert, C. A.: 64
Eckman, R. S.: 576
Edwards, B. D.: 777
Edwards, D.: 320
Edwards, J. W.: 102, 136, 137
Edwards, W. C.: 445, 621, 846, 847
Egge, R.: 715
Egoavil, M. A.: 177
Ehrlich, G. E.: 781
Ellingson, R. G.: 666
Elliott, D. M.: 56, 71, 80

Elsayed-Ali, H. E.: 354
Ely, J. J.: 108, 346, 347, 353
Emiley, M. S.: 144, 145
Engelund, W. C.: 24, 27, 33
Equall, R. W.: 849
Erdogan, T.: 421, 836, 837
Erickson, G. E.: 28, 29
Etherton, J. R.: 236
Eure, K. W.: 713
Evans, K. F.: 611
Evans, S. A.: 295
Everett, R. A., Jr.: 296, 297
Everhart, J. L.: 17, 114
Exton, R. J.: 830, 831

F

Fahl, M.: 725
Fairall, C. W.: 587, 682
Fairlie, T. D.: 6, 526, 552, 576
Fales, C. L., Jr.: 425
Farassat, F.: 779, 780
Farley, G. L.: 228, 229
Fasanella, E. L.: 104, 109, 110, 116, 117,
 118, 122, 467, 490
Feltz, W. F.: 616, 625, 671
Fenn, M. A.: 522, 555
Ferlemann, S. M.: 2
Ferrare, R. A.: 522, 556, 565, 596, 612, 613,
 614, 615, 616, 621, 622, 623, 625, 671
Feuz, L.: 302
Fibich, G.: 733
Fichter, W. B.: 468
Fields, J. M.: 781
Fillion, J. E.: 223
Finley, T. D.: 417
Fisher, F. A.: 348
Fitzgerald, C. M.: 427, 448
Fitzgerald, S. M.: 384
Flatoy, F.: 667
Fleming, G. A.: 415, 447, 774
Fleming, G. G.: 812
Florance, J. R.: 134, 142
Flynn, L. E.: 559
Fogarty, T.: 883
Fogdall, L. B.: 321
Follet, J. I.: 769, 782
Foster, J. M.: 17

Fox, J.: 458
Fox, R. L.: 23, 151, 230, 283, 295, 441
Frank, K. L.: 857, 863
Fraysse, H.: 186
Fremaux, C. M.: 49
Frendi, A.: 24
Fridlyander, J. N.: 257
Frink, N. T.: 30, 31
Froggatt, M. E.: 421, 441, 835, 836, 837, 841
Froidevaux, L.: 559
Fu, Q.: 602
Fuelberg, H. E.: 588
Fuhrmann, H. D.: 43
Fuller, C. R.: 785
Fullerton, C. G.: 172
Fulton, J. P.: 283

G

Gaeta, R. J., Jr.: 764, 765, 766, 767, 768
Gafka, G. K.: 111
Garber, D. P.: 4
Garcia, J. L.: 105
Garcia, R. R.: 573
Gardner, J. E.: 223
Garg, S.: 416
Garn, M. A.: 202
Garreaud, R.: 682
Gates, T. S.: 225, 231, 232, 233, 313, 314,
 315, 316, 317, 332, 497
Gatski, T. B.: 14, 32, 47, 370, 371, 372, 373,
 374, 401, 406, 410, 411
Gayet, J-F.: 667
Ghee, T. A.: 416
Ghirighelli, G. L.: 133
Gibbs, G. P.: 469, 776, 783
Gibson, S. C.: 561
Giersch, L. R.: 502
Giesy, D. P.: 342
Gilinsky, M. M.: 811
Gimmestad, G. G.: 64
Giovanardi, M.: 784
Glaab, L. J.: 71, 152
Gladman, B.: 683, 688
Glaessgen, E. H.: 234, 235, 236, 237, 247
Glass, C. E.: 375, 376, 377
Glassman, M.: 860
Gnoffo, P. A.: 376, 377

- Gobeille, R.: 825
 Goldman, A.: 578, 829
 Golembiewski, W. T.: 311, 345
 Golub, R. A.: 814
 Goodman, D. L.: 298
 Goodman, W. L.: 438
 Gordley, L. L.: 549, 574
 Gormley, T.: 458
 Gorton, S. A.: 19, 40, 57, 447
 Gottlieb, D. I.: 368
 Gottlieb, S.: 734
 Gould, D. C.: 378, 379
 Grant, W. B.: 521, 522, 527, 555, 556, 560,
 561, 562
 Green, C. J.: 598, 600, 617, 618
 Green, L. L.: 100, 112, 147, 148, 170, 171
 Green, R. N.: 653
 Gregory, G. L.: 532, 588
 Grimsley, B. W.: 329
 Groom, N. J.: 207, 337, 338, 341
 Gropp, W. D.: 692
 Grosch, C. E.: 411
 Grose, W. L.: 6, 552, 576
 Grosveld, F. W.: 774
 Grubb, J. P.: 178
 Gruber, M.: 269
 Guelachvili, G.: 820
 Gumbert, C. R.: 100
 Gunson, M. R.: 344
 Gupta, R. N.: 874
 Gupta, S. K.: 665
- H**
- Haberer, S. J.: 598, 600
 Hachkowski, M. R.: 455, 484
 Haeffelin, M. P.: 678
 Hafley, R. A.: 261, 262, 263
 Hagan, M.: 573
 Hahne, D. E.: 73
 Hair, J. W.: 562
 Halama, G. E.: 355, 356
 Hales, S. J.: 261, 263
 Halthore, R.: 616
 Hamilton, D. W.: 58, 75, 76
 Han, J.: 59, 68, 75, 76
 Hanks, B. R.: 477
 Hansen, G. M.: 528
- Hanuska, A.: 380
 Hare, D. A.: 422, 423, 838
 Harper, D. B.: 562
 Harris, C. E.: 237, 238, 264, 312
 Harris, F. W.: 318
 Harrison, F. W.: 656, 657
 Harrison, W.: 658, 659
 Hart, M.: 220
 Hart, R. C.: 381, 382, 424
 Hartley, S.: 614
 Harvey, G. A.: 208, 209, 210, 211
 Harvey, V. L.: 6, 526
 Harvin, S. F.: 179
 Hatfield, M. O.: 353
 Hathaway, W.: 184
 Hauglustaine, D. A.: 563, 564
 He, G.: 369, 383
 Heard, W. L., Jr.: 214
 Heath, D. M.: 762
 Heck, P. W.: 619, 646, 661, 662, 681
 Heeg, J.: 113
 Hefner, J. N.: 34
 Heilbronn, L. H.: 309, 883, 887, 898, 902
 Heilman, L. A.: 562, 565, 615, 616, 623
 Heinbockel, J. H.: 54, 879, 882, 898, 900,
 902, 903
 Hellbaum, R. F.: 151, 230, 454
 Hemsch, M. J.: 178
 Hendricks, H. D.: 446
 Hergenrother, P. M.: 289, 290, 291, 292, 294,
 299, 300, 301, 318, 319, 324, 325
 Herman, J.: 672
 Herman, R.: 615
 Herring, G. C.: 381, 382, 424, 832, 833, 839
 High, J. W.: 151
 Hignett, P.: 614
 Hilburger, M. W.: 470, 471, 472, 508
 Hill, J. S.: 17
 Hillard, M. E., Jr.: 839
 Hinkley, J. A.: 302, 303, 317, 332
 Hinton, D. A.: 60, 61, 62, 77, 79
 Hinton, D. E.: 658, 659
 Hinton, Y. L.: 757
 Ho, S-P.: 633, 682
 Hoadley, S. T.: 140
 Hobbs, C. M.: 799, 802
 Hobbs, P. V.: 614

Hochstenbach, P.: 867
Hodge, J. S.: 179
Hodges, W. T.: 57
Hodson, R. F.: 349, 360, 361
Hoffman, E. K.: 265
Hogervorst, W.: 554
Holden, C., Jr: 652
Holland, S. D.: 27, 33, 53
Holloway, C. M.: 706
Hoppe, J. C.: 415
Hopson, P., Jr.: 435
Horneck, G.: 683, 688
Horner, G. C.: 473, 474
Horonjeff, R. D.: 796
Horta, L. G.: 475, 476, 477, 503
Horvath, T. J.: 384
Hostetler, C. A.: 528, 620, 652
House, P. L.: 863
Hovenier, J. W.: 554
Howell, P. A.: 763
Hu, C.: 748
Hu, H.: 758
Hu, Y-X.: 591, 633
Huang, A.: 658, 659
Huang, H. L.: 657
Huck, F. O.: 425
Huebner, L. D.: 4, 157
Hughes, S. J.: 192
Humes, D. H.: 209
Humphreys, W. M., Jr.: 440, 773
Hunt, J. L.: 3
Hunt, W. H.: 528
Huppi, R.: 658, 659
Hutcheson, R. L.: 443, 450, 845, 849
Hutton, A.: 488
Huttsell, L. J.: 124
Hyer, M. W.: 518
Hysom, D. A.: 696, 697

I

Irion, F. W.: 344
Ismail, S.: 522, 556, 565, 596, 613, 614, 615, 621, 622, 623
Iyer, N.: 537, 544, 546, 547
Iyer, V.: 114

J

Jackson, E. B.: 172
Jackson, K. E.: 104, 109, 115, 116, 117, 118, 122, 467
Jackson, M.: 81
Jackson, W. C.: 266
Jacobs, J. A.: 223
Jager, H.: 571
Jalink, A., Jr.: 151, 454
James, M. A.: 254
Jaunty, N.: 304
Jegley, D. C.: 478
Jenkins, L. N.: 44, 385
Jensen, B. J.: 284, 305, 306, 307, 308, 328, 333, 334
Jensen, E. J.: 532
Jentink, T. N.: 24
Jiang, Y.: 572
Johns, B.: 202
Johnson, A. R.: 479, 480, 481, 482
Johnson, E. R.: 465
Johnson, J. W.: 426
Johnson, M. E.: 785
Johnson, T. F.: 328, 329
Johnson, W. S.: 286
Jolly, J. R.: 772
Jones, G. S.: 4
Jones, H. E.: 771
Jones, N. B.: 575, 578
Jones, R. L.: 735
Jones, S. B.: 437, 438
Jongen, T.: 374
Jonsson, J. E.: 63
Jordan, J. D.: 224
Jordan, T. L.: 386
Jorgensen, C. A.: 203, 212, 213
Joshi, S. M.: 162, 166, 716, 717, 718, 720, 721
Joyner, M. L.: 736
Juang, J-N.: 119, 120, 469, 483, 486, 488, 724, 872
Julien, H. L.: 220

K

Kahng, S. K.: 350
Kamhawi, H.: 2

- Kaneshiro, H.: 329, 330, 331
 Kaplan, N. R.: 861
 Kaushik, D. K.: 692
 Kawamoto, K.: 619, 661, 662
 Keel, B. M.: 64
 Kelkar, A. G.: 166, 717, 718
 Kellas, S.: 104
 Keller, D. F.: 106, 142
 Kelley, H. L.: 12
 Kelly, J. J.: 769, 782
 Kenney, H. M.: 25
 Kent, G. S.: 580, 674, 761
 Kent, R. M.: 55, 65, 69
 Kessel, G.: 757
 Keyes, D. E.: 692
 Khaiyer, M. M.: 624, 636, 638
 Kholief, M.: 867
 Kholwad, T. D.: 499, 500, 501
 Kiefer, R. L.: 309, 883
 Kielin, E. J.: 256
 Kim, J.: 805
 Kim, M-H.: 54, 883, 884, 901, 902
 Kim, M. Y.: 309, 881, 898, 903
 Kimura, S.: 796
 Kinard, W. H.: 209, 210, 211
 Kincaid, R. K.: 5
 King, M. D.: 593
 King, R. A.: 387, 388, 389
 Klausmeyer, S. M.: 391
 Kleb, M. M.: 530, 531, 576
 Klein, D. J.: 310
 Klein, P. D.: 777
 Klinedinst, D.: 302
 Knight, N. F., Jr.: 118
 Knuteson, R.: 625
 Ko, M. K.: 584
 Koble, A.: 840
 Koch, G. J.: 427, 448
 Kodiyalam, S.: 8, 707, 737
 Kokta, M. R.: 450
 Kolodziejksi, N.: 817, 824, 825
 Kooi, S. A.: 521, 556, 561, 565, 614, 615,
 621, 622, 623
 Korte, J. J.: 180, 197, 222
 Kowalkowski, M. K.: 364, 365
 Kramer, L. J.: 66, 67, 71
 Krasovic, V. A.: 569
 Kratz, D. P.: 590, 591
 Krichel, T.: 867
 Krieger, W. B.: 178
 Krueger, R.: 239, 240, 241, 242
 Kruger, A. T.: 878
 Kuchar, J. K.: 93
 Kulmala, M.: 667
 Kumar, A.: 34
 Kumar, R. R.: 218, 219
 Kunz, D. L.: 130
 Kurdila, A.: 132
 Kurtz-Husch, J. D.: 475
 Kvaternik, R. G.: 35, 119, 120, 154, 476, 477

L

- Lake, M. S.: 214, 455, 484
 Lallemand, P.: 390
 Lambeth, J. D.: 557, 558
 Lan, C. E.: 174
 Lanz, M.: 133
 Larar, A. M.: 548, 585, 625, 660
 Latorella, K. A.: 152
 Lawrence, R. M.: 528
 Lawrence, R. W.: 426, 428, 429, 432
 Lawson, K. P.: 25
 LeBlanc, T.: 572
 LeMarshall, J.: 657
 Lee, J. W.: 449
 Lee, R. B., III: 586, 590, 626, 627, 628, 629,
 630, 649, 651, 653, 654, 655, 669, 670,
 677
 Lehmann, R.: 575
 Lei, J-F.: 194
 Leighty, B. D.: 224
 Leonard, C. P.: 2
 Lepsch, R. A., Jr.: 197, 198, 199, 200
 Lessard, W. B.: 36
 Levine, J. S.: 563, 564, 566, 567, 568, 569,
 570
 Lewis, R. M.: 100, 722, 723, 732, 738, 752,
 753, 754
 Ley, R. P.: 491
 Librescu, L.: 123, 485
 Lieber, L.: 786, 787
 Liljegren, J. C.: 607
 Lilley, G. M.: 82
 Lim, K. B.: 342

- Lin, B.: 631, 632, 633, 642, 646, 682
 Lin, C.: 486
 Lin, J. C.: 391
 Lin, K. Y.: 487
 Lin, W.: 485, 491
 Lin, Y-L.: 59, 68
 Lindegren, L.: 683, 688
 Lindell, M. C.: 187, 188
 Liou, M-S.: 37
 Lisagor, W. B.: 277
 Little, B. D.: 151
 Liu, T.: 416, 430
 Liu, X-M.: 867
 Livingston, J.: 614
 Llorente, I. M.: 739, 742
 Lo, C. F.: 181
 Lockard, D. P.: 82, 392, 409, 788, 789
 Lockwood, M. K.: 191
 Loeb, N. G.: 644
 Lofftus, D.: 843
 Lohr, G. W.: 80
 Loncaric, J.: 740
 Long, C. N.: 607, 608
 Long, L. N.: 790
 Longman, R. W.: 483, 488
 Lopatin, C. M.: 841
 Lovejoy, A. E.: 489
 Lowther, S. E.: 286, 319
 Lu, C-H.: 571
 Lubin, D.: 672
 Lucker, P. L.: 528, 620
 Luettgen, G.: 695, 698, 699, 700
 Lund, T.: 843
 Lunsford, C. B.: 434
 Luo, L-S.: 390, 392, 393, 394
 Luskin, M.: 730
 Lyapunov, V. M.: 867
 Lyle, K. H.: 109, 110, 121, 122, 467, 490

M

- Ma, F.: 254
 Ma, X.: 720, 721
 Maahs, H. G.: 309
 MacConochie, I. O.: 201
 MacMartin, D. G.: 813
 Mace, G. G.: 605, 606, 607, 608
 Machie, H. B.: 866
- Mackenzie, A. I.: 431, 432
 Mackey, C. E.: 595
 Madaras, E. I.: 250, 251, 252, 274
 Madenci, E.: 464, 505
 Maestrello, L.: 791, 792, 793, 794, 795
 Maghami, P. G.: 215, 216, 217
 Mahesh, A.: 604, 634, 637
 Mahieu, E.: 344, 578
 Mahler, M.: 491, 498
 Mahoney, M. J.: 521, 551, 556, 615, 623
 Malekpour, M. R.: 714, 755
 Mallick, P. K.: 223
 Malone, J. B.: 868
 Maly, K.: 694, 867
 Manalo-Smith, N.: 654
 Mango, S.: 625
 Manney, G. L.: 571
 Mannstein, H.: 635, 650
 Mantegazza, P.: 133
 Mantz, A. W.: 816, 817, 824, 825
 Mao, Y.: 718
 Marable, W. P.: 856
 Marcolini, M. A.: 775, 777
 Marsh, W. D.: 445, 846, 847
 Marshall, B. T.: 549
 Martin, C. J., Jr.: 190, 193
 Martin, J. G.: 2
 Martzaklis, K. S.: 87
 Marzocca, P.: 123
 Masarati, P.: 133
 Mason, B. H.: 147, 148
 Massenberg, S. E.: 74, 858
 Massey, S. J.: 50
 Matthews, W. T.: 297
 Mavriplis, D. J.: 741
 Mavris, D. N.: 127
 Mazanek, D. D.: 202, 218, 219
 McAdoo, J. A.: 351
 McAfee, N.: 715
 McCarthy, J. C.: 448
 McClinton, C. R.: 159
 McCormick, M. P.: 580
 McDaniel, P. R.: 267
 McFarlane, S.: 599
 McGee, F. G.: 92
 McGee, T. J.: 521, 556, 620
 McGinley, C. B.: 435

- McGowan, A. R.: 10
 McGowan, D. M.: 227, 492
 McHatton, J. R.: 17
 McKinley, R. E., Jr.: 4
 McPeters, R. D.: 559
 Mead, J. L.: 482
 Meagher, N. E.: 220
 Mehrotra, P.: 691, 694, 701
 Mei, R.: 394
 Mekkes, G. L.: 158
 Melosh, J.: 683, 688
 Mendler, M.: 698
 Menzel, W. P.: 593
 Meredith, B. D.: 529
 Messner, W. C.: 872
 Metschan, S. L.: 268
 Meyer, R.: 635
 Meyers, J. F.: 449
 Micheletti, D. A.: 842
 Micheletti, S.: 728
 Mikovitz, J.: 665
 Mikulas, M. M., Jr.: 493
 Mileikowsky, C.: 683, 688
 Milholen, W. E., II: 38
 Milicic, B.: 667
 Miller, J.: 887, 898, 902
 Miller, J. S.: 796
 Miller, N. P.: 796
 Millott, T.: 813
 Mills, F. P.: 572
 Mineck, R. E.: 39, 40, 41
 Miner, P. S.: 699, 714
 Minguet, P. J.: 239, 240, 242
 Minnis, P.: 587, 597, 604, 605, 606, 607, 608,
 609, 610, 619, 624, 631, 632, 633, 634,
 635, 636, 637, 638, 639, 640, 641, 642,
 643, 644, 645, 646, 647, 648, 650, 661,
 662, 663, 664, 666, 667, 668, 672, 673,
 674, 675, 680, 681, 682
 Mirick, P. H.: 151
 Mitchell, C. M.: 70
 Mitcheltree, R. A.: 185, 188, 192
 Mlynaczak, M. G.: 573
 Mo, S. Y.: 311
 Mohnen, V. A.: 571
 Montero, R. S.: 742
 Montgomery, R. C.: 171
 Moore, J. P.: 421, 835, 836
 Moore, T. C., Sr.: 422, 423, 838
 Morcrette, J-J.: 644
 Morelli, E. A.: 167, 168, 169
 Morris, W. D.: 198, 199
 Morrison, J. H.: 47
 Moses, R. W.: 124
 Moss, J. N.: 395, 396, 397, 398
 Motter, M. A.: 719
 Moulton, R.: 298
 Mtetwa, L.: 569
 Mukhopadhyay, V.: 146, 148, 709, 797
 Munden, W. M., III: 426
 Munk, M. M.: 875
 Munns, T. E.: 69
 Munoz, C.: 693, 699, 702
 Munro, S.: 768
 Munroe, J.: 269
 Muravyov, A.: 504
 Murcray, F. J.: 578
 Murphy, D. A.: 65, 69
 Murray, D. B.: 856, 859
 Murray, K. E.: 443, 450
 Murri, D. G.: 25
 Murri, G. B.: 243
 Murty, H.: 798
 Myers, D. E.: 190, 193
- N**
- Na, J. K.: 281, 757
 Namkung, M.: 255, 270, 280, 283
 Nasiri, S. L.: 592
 Natarajan, M.: 6, 552, 557, 558, 574, 576
 Nedoluha, G.: 572
 Neil, D. O.: 549
 Nelson, M. L.: 861, 862, 867
 Nemeth, M. P.: 460, 470, 471, 485, 494, 495,
 496
 Nemtchinov, V.: 572
 Newchurch, M. J.: 559
 Newell, R. E.: 588
 Newman, J. C., Jr.: 254, 264, 271, 272, 275,
 276, 297, 312, 322, 335, 497
 Newman, P. A.: 100
 Ngom, M.: 878
 Nguyen, L.: 597, 639, 642, 645, 647, 648,
 661, 662

Nguyen, T. X.: 108, 346, 347, 352, 353
Nicholson, L. M.: 313, 314, 315, 316, 317,
 332
Nicol, D. M.: 703
Nielsen, E. J.: 723
Nikitin, A.: 826
Nikjoo, H.: 880
Nixon, M. W.: 125, 133
Nolf, S. R.: 418, 532, 533
Noll, T. E.: 129
Noor, A. K.: 759, 903
Norbury, J. W.: 878, 905
Nordeen, M. L.: 648
Norheim, A.: 126
Norman, R. M.: 67
Northam, G. B.: 244, 245, 248, 249
Notari, A.: 562
Notholt, J.: 575

O

O'Brien, T. K.: 226, 239, 240, 241, 242
O'Connor, C. J.: 62
Ogilvie, K. W.: 672
Oglesby, D. M.: 224, 436
Olson, E. D.: 127
Olson, J. R.: 525, 576
Ooi, I. H.: 318
Oplinger, D. W.: 893
Osborn, M. T.: 528, 538, 581, 620, 679
Osterman, G. B.: 344
Ostroff, A. J.: 161, 162
Ou, S. C.: 591
Ounaies, Z.: 386, 749
Ovarlez, J.: 532, 667

P

Pack, L. G.: 42, 407, 408, 724
Paden, B.: 337
Paden, J.: 586, 627, 628, 629, 630, 649, 651,
 653, 655, 669, 670, 677
Pado, L. E.: 141
Padula, S. L.: 690
Page, J. A.: 799
Palikonda, R.: 597, 635, 640, 641, 650
Pallix, J.: 194, 458
Palm, T.: 498

Palmer, M. T.: 70
Palumbo, D. L.: 800, 801
Pamadi, B. N.: 43
Pandey, D. K.: 586, 627, 628, 630, 649, 651,
 653, 655, 669, 670, 677
Pandya, M. J.: 30, 31
Pao, J. L.: 22
Pappa, R. S.: 499, 500, 501, 502, 774
Parasuraman, R.: 128
Parikh, P. C.: 30, 31
Paris, I. L.: 242
Park, C.: 319
Park, M. A.: 112, 170, 171
Parker, F. R.: 763
Parrish, A.: 554
Parrish, R. V.: 71
Paschal, K. B.: 44
Pastor, P. R.: 876
Pellett, G. L.: 156
Pendergraft, O. C., Jr.: 41
Peppler, R. A.: 616
Perrin, A.: 829
Perry, B., III: 129
Perry, R. B.: 56, 80
Pethick, D. G.: 645, 648
Petros, M.: 427, 453, 848, 850, 851, 852
Pettersson, J.: 667
Pettit, R. G.: 273
Petway, L. B.: 445, 846, 847
Phillips, M. W.: 852
Piascik, R. S.: 264, 272, 312, 497
Piatak, D. J.: 106, 125, 130
Picque, N.: 820
Pierce, R. B.: 6, 526, 552, 576
Piland, W. M.: 869
Pine, D. J.: 869, 870, 871
Pinelli, T. E.: 857, 858, 860, 863
Pinto, J. P.: 570
Pirzadeh, S. Z.: 30, 31, 45, 46
Pitts, M. C.: 652
Plassman, G. E.: 131
Plotkin, K. J.: 799, 802
Plotnikov, Y.: 760
Podolske, J. R.: 532, 615
Poe, C. C., Jr.: 235
Poole, L. R.: 580, 652
Pope, A. T.: 72, 685

- Pope, S.: 673
 Pope, S. K.: 604, 637
 Popelka, D.: 125
 Pothen, A.: 696, 697
 Povitsky, A.: 399, 400
 Powell, C. A.: 803, 804
 Powell, K. A.: 580
 Powell, R. W.: 186, 875
 Powers, C.: 320
 Prabakhakaran, R.: 297
 Prazenica, R.: 132
 Preisser, J. S.: 803
 Priestley, K. J.: 586, 590, 627, 628, 629, 630,
 644, 649, 651, 653, 655, 669, 670, 677
 Prieto-Matias, M.: 739
 Princen, N. H.: 172
 Prinzel, L. J., III: 71, 72
 Prior, E. J.: 73, 74, 858, 877
 Pritchard, J. I.: 110
 Proctor, D. P.: 303
 Proctor, F. H.: 58, 68, 75, 76, 77, 78, 90
 Prosser, W. H.: 194, 458, 805
 Puster, R. L.: 177
- Q**
- Qu, M.: 218, 219
 Quagliaroli, J. M.: 502
 Quaranta, G.: 133
 Queen, E. M.: 195
- R**
- Racel, A. M.: 600
 Rackl, R. G.: 806, 807
 Radeztsky, R. H.: 430
 Rajic, N.: 760
 Raju, I. S.: 234, 235, 236, 237, 743
 Ramanathan, V.: 654
 Ramirez, J.: 220
 Randel, W. J.: 545
 Raney, D. L.: 112, 171, 690, 724
 Ransone, P. O.: 244, 248, 249
 Raper, J. L., Sr.: 530, 531
 Rault, D. F.: 579, 652
 Rausch, V. L.: 159
 Reaves, M. C.: 503
 Reddy, C. J.: 98, 99
- Reeder, J. R.: 246, 247
 Refaat, T. F.: 354, 355, 356, 451
 Rehder, J. J.: 708, 709
 Reichle, D. J., Jr.: 442, 444, 845
 Reid, J.: 715
 Reis, D. G.: 57
 Remsberg, E. E.: 553, 572, 574, 577
 Reukauf, P.: 159
 Revercomb, H.: 625, 656, 657, 658, 659
 Rex, M.: 575
 Rezaeepazhand, J.: 507
 Rhodes, M. D.: 506
 Richards, M. A.: 64
 Richardson, R. E.: 353
 Rickard, S. J.: 89
 Rickman, H.: 683, 688
 Riddick, S. E.: 79
 Rifkin, H.: 587, 682
 Riggins, D. W.: 160
 Rine, L. L.: 80
 Rinsland, C. P.: 344, 575, 578, 818, 820, 821,
 822, 823, 828, 829
 Ritchey, N.: 595
 Rivera, J. A., Jr.: 134
 Rivers, H. K.: 244, 245, 248, 249
 Rivers, R. A.: 172
 Rizzi, S. A.: 7, 504, 517, 806, 807
 Roberts, M. J.: 357
 Roberts, T. W.: 744
 Robinson, J. H.: 808, 809
 Robinson, J. S.: 2
 Roble, R. G.: 573
 Rock, K. E.: 157
 Rocker, J.: 864
 Rodgers, W. G., Jr.: 95, 96
 Rodriguez, C. G.: 160
 Rogers, J. L.: 690, 710
 Rogowski, R. S.: 333, 334, 835, 841
 Rohrbach, W. W.: 454
 Roithmayr, C. M.: 183
 Rokhlin, S.: 805
 Rokni, M.: 401
 Rommel, M. L.: 292
 Ronaghi, M.: 236
 Rose, C. A.: 519, 520
 Rose, F. G.: 602
 Ross, R. W.: 433

- Rote, D.: 843
 Roth, J. R.: 402
 Rouse, M.: 491, 498
 Rousseau, C. Q.: 463
 Rousseau, S.: 186
 Rubinstein, R.: 383, 403, 404, 405
 Rudisill, M.: 686
 Ruf, E. G.: 157
 Rumsey, C. L.: 47, 406
 Rusk, D.: 487
 Russell, D. A.: 321
 Russell, J. M., III: 6, 559, 572
 Russell, P. B.: 614, 622
 Rutan, D.: 602
 Ruth, M.: 43
 Ryaben'kii, V. S.: 740
- S**
- Sacco, R.: 728
 Sachs, E. W.: 725
 Sachse, G. W.: 135, 532, 549, 551, 588, 615, 623
 Sadourny, R.: 672
 Saganti, P. B.: 885
 Salas, A. O.: 146, 148, 709, 711
 Salawitch, R. J.: 344
 Samanant, P.: 81
 Samareh, J. A.: 48, 146, 147, 148, 155, 204, 745, 746, 747
 Sams, R. L.: 821, 823, 827
 Sander, S. P.: 572
 Sandler, V. S.: 257
 Sandusky, R. R., Jr.: 144, 145
 Sankaran, S. N.: 258
 Sanok, J. T.: 205, 206
 Santa Maria, O. L.: 810
 Saulsberry, R.: 220
 Scearce, S. A.: 108, 346, 347, 353
 Schaffner, P. R.: 86, 87
 Schimmerling, W.: 886, 901, 903
 Schmidlin, F. J.: 621, 625
 Schoeberl, M. R.: 521, 556
 Schrems, O.: 667
 Schryer, D. R.: 256
 Schryer, J. L.: 256
 Schumann, U.: 667
 Schuster, D. M.: 15, 136, 137
- Schutte, P. C.: 91, 128, 138
 Schweikhard, K.: 458
 Schwind, F. A.: 248, 249
 Scott, A. D., Jr.: 530, 531
 Scott, E. P.: 380
 Scott, M. A.: 350
 Scott, R. C.: 103, 129, 137, 139, 140, 141, 142
 Seale, M. D.: 250, 251, 252, 274
 Seifert, A.: 42, 407, 408, 724
 Seiner, J. M.: 811
 Sen, B.: 344, 575
 Senzig, D. A.: 796, 812
 Sergeev, B.: 505
 Seshadri, B. R.: 275, 276, 322
 Sevilla, D.: 206
 Seywald, H.: 218, 219
 Shafer, D. B.: 86, 87
 Shah, C. H.: 491, 498
 Shams, Q. A.: 434
 Shavers, M. R.: 887
 Shaw, R. J.: 150
 Sheldon, B. W.: 368
 Shen, S.: 59
 Sheplak, M.: 435
 Sherman, D. M.: 402
 Shi, J.: 748
 Shin, S-J.: 149
 Shinn, J. L.: 54, 879, 892, 898, 900, 902, 903
 Shu, C-W.: 730, 731, 734, 748
 Shupe, M.: 597
 Shyy, W.: 394
 Sickler, J.: 835
 Sidilkover, D.: 744
 Silva, W. A.: 123, 132, 142
 Silverman, E. M.: 506
 Simitses, G. J.: 507
 Simonsen, L. C.: 192, 309
 Simpson, J. W.: 280
 Singer, B. A.: 82, 392, 409
 Singh, U. N.: 221, 452, 453, 848, 850, 851, 852
 Singleterry, R. C., Jr.: 54, 879, 887, 888, 889, 890, 891, 892, 898, 900, 902, 903
 Singleton, J. D.: 143
 Sinha, N.: 126
 Sitz, J.: 159

- Slate, T. A.: 532
 Sleight, D. W.: 237, 509
 Small, W. S.: 498
 Smeltzer, S. S., III: 495, 496
 Smith, B. F.: 692
 Smith, C. D.: 434
 Smith, G. L.: 590, 627, 629, 649, 651, 654,
 655, 670, 676, 677
 Smith, J. G., Jr.: 289, 290, 291, 292, 294,
 301, 319, 323, 324, 325
 Smith, M. A.: 816, 817, 818, 819, 820, 821,
 822, 823, 824, 825, 826, 827, 828, 829
 Smith, R. C.: 749
 Smith, W.: 220
 Smith, W. L.: 548, 585, 625, 642, 656, 657,
 658, 659, 660
 Smith, W. L., Jr.: 619, 624, 661, 662, 663,
 673
 So, R. M.: 410
 Sobieszczański-Sobieski, J.: 5, 8, 131, 144,
 145, 707
 Song, K. D.: 311, 345
 Sorenson, C. E.: 532, 551
 Soulen, P. F.: 591, 593
 South, J. C., Jr.: 750
 Southward, R. E.: 326
 Spangenberg, D. A.: 597, 604, 634, 637, 664
 Sparks, D. W., Jr.: 217
 Spence, P. L.: 629, 651, 653, 655
 Spina, E. F.: 435
 Spinhirne, J. D.: 594
 St. Clair, A. K.: 326
 St. Clair, T. L.: 253, 267, 286, 308, 319, 328,
 329, 330, 331
 Stackhouse, P. W., Jr.: 665, 676
 Stancil, C. E.: 64
 Starnes, J. H., Jr.: 459, 460, 465, 470, 471,
 472, 485, 507, 508, 518, 519, 520
 Starr, R. M.: 858
 Steeman, G. A.: 865
 Stephen, T. M.: 578, 829
 Stephens, G. L.: 666
 Stephens, R. M.: 435
 Stewart, E. C.: 83, 84
 Stewart, S. H.: 866
 Stoakley, D. M.: 326
 Stocks, B. J.: 569
 Stockwell, A. E.: 110
 Stoddard, D. B.: 598
 Storm, J.: 667
 Storm, M. E.: 445, 846, 847
 Stough, H. P., III: 85, 86, 87
 Strabala, K. I.: 593
 Striepe, S. A.: 186, 876
 Stuever, R. A.: 88, 89
 Stusnick, E.: 799
 Subramanian, C. S.: 436
 Suli, E.: 730
 Sullivan, B. M.: 801, 804, 813
 Sumpter, R.: 493
 Sun, C. T.: 153
 Sun-Mack, S.: 608, 619, 646, 668, 681
 Sutton, K.: 4
 Sutton, M. A.: 254
 Swaminathan, S. R.: 878
 Swanson, R. C., Jr.: 4
 Swart, D. P.: 554
 Switzer, G. F.: 76, 78, 90
 Szewczyk, Z. P.: 509

T

- Tadmor, E.: 734
 Tai, H.: 904
 Talay, T. A.: 196
 Taleghani, B. K.: 510, 511
 Talley, M. A.: 437, 438
 Taminger, K. M.: 277
 Tanre, D.: 614
 Tao, G.: 720, 721
 Tartabini, P. V.: 197
 Taylor, L. W., III: 2
 Taylor, N. J.: 416
 Tcheng, P.: 386
 Telban, R. J.: 687
 Tessler, A.: 464, 512, 513, 893
 Teter, J. P.: 473, 474
 Thacker, W. D.: 411
 Thibeault, S. A.: 309, 883, 890, 891, 892,
 902, 903
 Thomas, J. L.: 750
 Thomas, M.: 835
 Thomas, R. H.: 769, 782
 Thomas, S.: 586, 627, 628, 630, 651, 653,
 655, 669, 670, 677

Thomason, L. W.: 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 546, 547
Thompson, D. W.: 326
Thompson, R. A.: 412
Thompson, R. H.: 796
Thurman, D. A.: 70
Tietjen, A.: 366
Tiwari, S. N.: 859
Toh, C.: 273
Tomek, D. M.: 173
Tomek, W. G.: 17
Tooman, T. P.: 616, 666
Toon, G. C.: 344, 575
Toon, O. B.: 521, 556
Torczon, V.: 732, 738
Torres, W.: 714, 755
Torres-Pomales, W.: 712
Townsend, J.: 320
Townsend, J. C.: 146, 148
Trepte, C. R.: 340, 542, 543, 579
Tripathi, R. K.: 54, 878, 879, 892, 894, 895, 896, 897, 898, 900, 902, 903, 905
Tripp, J. S.: 386
Troeger, L. P.: 278, 279
Trosset, M. W.: 738
Troutman, P. A.: 202
Trujillo, A. C.: 91
Tsay, S-C.: 591
Tsou, J. J.: 554
Tsynkov, S. V.: 733, 740, 744
Turner, D.: 625
Turner, D. D.: 616, 671
Turner, T. L.: 514, 515, 517
Tyuterev, V. G.: 826

U

Uenking, M. D.: 684
Ulbrich, N.: 114
Unal, R.: 198, 199
Upchurch, B. T.: 256
Uttal, T.: 597, 604

V

Valderama, V.: 667
Valero, F. P.: 604, 637, 666, 672, 673
Valtonen, M.: 683, 688

Van Dam, C. P.: 49
Van Valkenburg, R. L.: 579
Van de Sompel, H.: 867
Vann, L. B.: 674, 761
Vay, S. A.: 532, 551, 588
Vazquez, M. E.: 881
Vazquez, S. L.: 873
Veefkind, J. P.: 614
Veiga, R. E.: 523, 674
Velden, C.: 658, 659
Vipperman, J. S.: 783
Visentine, J. T.: 210
Vitko, J., Jr.: 666
Von Der Beeck, M.: 700

W

Wagner, J. A.: 262, 277, 278, 279
Waheed, M.: 857
Walikainen, D. R.: 629
Wallace, T. A.: 258
Waller, M. C.: 80, 92
Walsh, B. M.: 444, 450, 845, 849
Walsh, J. L.: 146, 147, 148
Wang, H. J.: 559
Wang, J. J.: 273
Wang, J. T.: 153, 237
Wang, P-H.: 580, 584, 674, 675, 761
Wang, Q.: 50
Wang, Z.: 174
Wat, J. K.: 814
Watkins, A. N.: 224
Watson, J. J.: 214
Watson, K. A.: 293, 327
Watson, R. D.: 413
Watson, W. R.: 815
Weakley, J. A.: 309, 883
Weber, M.: 5
Weckmann, S.: 678
Weinheimer, A. J.: 551
Weinstein, B.: 713
Weinstein, L. M.: 4, 182
Weisenstein, D. K.: 584
Weiser, E. S.: 308, 328, 329, 330, 331
Westberg, D. J.: 588
Weston, R. P.: 147, 148
White, J. A.: 160
White, N. H.: 198, 199

- Whiteman, D. N.: 625
 Whitley, K. S.: 232, 233, 314, 315, 316, 317,
 332
 Wielicki, B. A.: 589, 590, 633, 646, 675
 Wieseman, C. D.: 103, 140
 Wilber, A. C.: 595, 676
 Wilbur, M. L.: 149
 Wilcox, F. J., Jr.: 16, 52
 Wilhite, A. W.: 150
 Wilkie, W. K.: 149, 151
 Wilkins, K.: 269
 Wilkins, R.: 883
 Wilkinson, S. P.: 402
 Williamson, C. K.: 358
 Willshire, K. F.: 152
 Wilson, D. M.: 869
 Wilson, J. W.: 54, 309, 683, 688, 879, 880,
 881, 882, 883, 884, 885, 886, 887, 892,
 894, 895, 896, 897, 898, 899, 900, 901,
 902, 903, 904, 905
 Wilson, L. A.: 211
 Wilson, R. S.: 586, 627, 628, 630, 649, 651,
 653, 655, 669, 670, 677
 Wilson, W. C.: 349, 359, 360, 361
 Winchenbach, G. L.: 184
 Wincheski, R. A.: 255, 280, 283, 736
 Winder, L. F.: 93
 Winfree, W. P.: 736, 756, 760, 762, 763, 853,
 854, 855
 Winstead, E. L.: 569
 Wiscombe, W.: 672
 Wise, K. L.: 307
 Witte, D. W.: 157
 Wong, T-C.: 22
 Wong, T.: 644, 675, 678
 Wood, G. M.: 256
 Wood, K. H.: 333, 334
 Wood, R. M.: 51, 52
 Wood, S. W.: 578
 Woodard, S. E.: 516
 Woods, D. C.: 581, 679
 Woods, W. C.: 33, 53
 Woods-Vedeler, J. A.: 680
 Wooldridge, E.: 320
 Wright, K. D., II: 434
 Wu, K. C.: 200, 498
 Wu, M-C.: 835, 837
 Wu, S-Y.: 517
 Wu, W.: 687
 Wu, X. R.: 335
 Wurster, K. E.: 197
- X**
- Xu, K.: 751
- Y**
- Yager, T. J.: 126
 Yamamoto, K. J.: 814
 Yang, P.: 591, 592
 Yang, R-J.: 8, 707
 Yang, Z.: 153
 Yao, C-S.: 23, 44, 391
 Yeager, W. T., Jr.: 143, 149, 154
 Yen, A.: 298
 Yetter, J. A.: 11
 Yost, W. T.: 259, 260, 281, 757
 Young, D.: 813
 Young, D. F.: 598, 600, 605, 606, 619, 639,
 643, 644, 645, 646, 647, 661, 662, 663,
 668, 678, 680, 681, 682
 Young, R. D.: 518, 519, 520
 Young, S. D.: 94
 Youssef, A.: 834
 Yu, J.: 453, 848, 850, 851, 852
 Yuan, C.: 737
 Yue, G. K.: 571, 580, 582, 583, 584
 Yung, Y. L.: 572
- Z**
- Zador, P.: 781
 Zak, J. A.: 95, 96
 Zakrajsek, J.: 458
 Zander, R.: 344, 578
 Zang, T. A.: 155
 Zapp, E. N.: 885
 Zawodny, J. M.: 537, 543, 544, 545, 546,
 547, 554, 559
 Zeitlin, C. J.: 887, 898, 902
 Zhang, J.: 68
 Zhao, C. Y.: 410
 Zhao, J. L.: 181
 Zheng, J. Q.: 683, 688
 Zhou, D. K.: 548, 585, 625, 660

Zima, H.: 701

Zubair, M.: 691, 694, 867

Zuckerwar, A. J.: 439, 440

Organization Index

Office of Director (A)

223, 362, 367, 368, 369, 381, 382, 383, 386, 390, 392, 393, 394, 399, 400, 403, 404, 405, 689, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 724, 725, 726, 727, 728, 730, 731, 732, 733, 734, 736, 738, 739, 740, 741, 742, 744, 748, 749, 750, 751, 842, 843

Independent Program Assessment Office (AH)

869, 870, 871

Systems Management Office (AJ)

150

Earth and Space Sciences Program Office (OB)

529

Space Access and Exploration Program Office (OC)

158, 159, 160, 192

Aerospace Vehicle Systems Technology Program Office (OD)

1, 10

Intelligent Synthesis Environment Program Office (OI)

759, 868

Aerospace Systems, Concepts and Analysis Competency (RA)

2, 3, 5, 8, 27, 43, 48, 100, 112, 127, 131, 144, 145, 146, 147, 148, 155, 170, 183, 184, 185, 186, 189, 191, 193, 195, 196, 197, 198, 199, 201, 202, 203, 204, 212, 213, 218, 219, 667, 686, 690, 707, 708, 709, 710, 711, 722, 723, 737, 745, 746, 747, 752, 753, 754, 797, 875, 876

Aerodynamics, Aerothermodynamics and Acoustics Competency (RB)

4, 7, 9, 11, 12, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 50, 51, 52, 53, 57, 82, 114, 156, 157, 173, 175, 176, 178, 180, 181, 182, 222, 224, 256, 350, 363, 364, 365, 366, 370, 371, 372, 373, 374, 375, 376, 377, 384, 385, 387, 388, 389, 391, 395, 396, 397, 398, 401, 402, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 419, 420, 422, 423, 424, 430, 433, 434, 436, 437, 438, 439, 440, 447, 449, 469, 504, 514, 515, 517, 758, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 798, 799, 800, 801, 802, 803, 804, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 830, 831, 832, 833, 838, 839, 874

Structures and Materials Competency (RC)

13, 14, 15, 35, 54, 102, 103, 104, 105, 106, 107, 109, 110, 111, 113, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 129, 130, 132, 133, 134, 136, 137, 139, 140, 141, 142, 143, 149, 151, 153, 154, 190, 194, 200, 214, 225, 226, 227, 228, 229, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 345, 357, 380, 421, 441, 455, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 505, 506, 507, 508, 509, 510, 511, 512, 513, 516, 518, 519, 520, 683, 688, 729, 743, 756, 757, 760, 762, 763, 805, 835, 836, 837, 841, 853, 854, 855, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905

Airborne Systems Competency (RD)

25, 49, 55, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 75, 76, 77, 78, 79, 80, 81, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 108, 128, 138, 152, 161, 162, 163, 164, 165, 166, 167, 168, 169, 171, 172, 174, 207, 215, 216, 217, 337, 338, 341, 342, 343, 346, 347, 348, 352, 353, 425, 426, 428, 429, 431, 432, 446, 684, 685, 687, 705, 706, 712, 713, 714, 716, 717, 718, 719, 720, 721, 735, 755, 872, 873

Atmospheric Sciences Competency (RE)

6, 339, 340, 344, 354, 355, 356, 358, 451, 521, 522, 523, 524, 525, 526, 527, 528, 530, 531, 532, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 761, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 834, 840

Systems Engineering Competency (RF)

28, 101, 135, 177, 179, 187, 188, 205, 206, 208, 209, 210, 211, 220, 221, 230, 283, 349, 351, 359, 360, 361, 378, 379, 418, 427, 435, 442, 443, 444, 445, 448, 450, 452, 453, 454, 456, 457, 533, 704, 715, 844, 845, 846, 847, 848, 849, 850, 851, 852, 862, 867

Office of Education (SH)

73, 74, 856, 857, 858, 859, 860, 863, 877, 906

Office of the Chief Information Officer (SL)

861, 864, 865, 866

RTOP Index

RTOP 101-15-01	882, 891	RTOP 242-20-05	262
RTOP 101-21-23	54, 683, 688, 878, 879, 880, 888, 889, 890, 892, 893, 894, 895, 896, 897, 898, 900, 902, 903	RTOP 242-23-02	237, 284
RTOP 101-23-21	885, 887	RTOP 242-23-20	258
RTOP 111-10-95	904	RTOP 242-33-01	43, 173, 193, 194, 196, 200, 201
RTOP 146-90-04	607, 616, 631, 671, 673	RTOP 242-33-03	28, 29, 189, 190, 191, 197, 222, 328
RTOP 146-96-00	585	RTOP 242-36-10	2
RTOP 229-01-02	586, 589, 590, 595, 598, 599, 600, 602, 611, 617, 618, 626, 627, 628, 629, 630, 633, 639, 644, 646, 647, 649, 651, 653, 654, 655, 668, 669, 670, 672, 677, 678, 681	RTOP 242-80-01	20, 33, 53, 175, 363, 364, 366, 375, 376, 377, 384, 395, 396, 397, 398, 412, 874
RTOP 229-01-04	591, 592, 593, 594	RTOP 242-82-00	287, 289, 292, 300
RTOP 229-01-72	601	RTOP 242-82-10	278, 294
RTOP 229-10-32	523, 579, 679	RTOP 242-82-61	836, 837
RTOP 242-08-01	365	RTOP 242-82-76	459, 518
		RTOP 242-90-19	214

RTOP 242-90-61		RTOP 282-10-08	
199, 835		73, 74, 857, 858, 877	
RTOP 247-00-00		RTOP 282-10-11	
570		759	
RTOP 251-10-01		RTOP 282-30-10	
223		864, 865, 866	
RTOP 251-30-07		RTOP 282-33-10	
391		198	
RTOP 258-30-00		RTOP 284-30-10	
549, 656, 658, 659		456, 457, 704, 715	
RTOP 258-70-21		RTOP 291-01-61	
221, 285, 418, 426, 428, 431, 432, 442, 444, 445, 450, 452, 453, 533, 844, 845, 846, 848, 849, 850, 851, 852		552, 576	
RTOP 258-80-00		RTOP 291-01-91	
351, 429, 529		665, 676	
RTOP 259-30-10		RTOP 291-02-01	
218, 219		620	
RTOP 259-40-01		RTOP 291-07-01	
652		528	
RTOP 274-00-00		RTOP 291-07-07	
236, 427, 448, 563, 564, 566, 568, 569		521	
RTOP 274-00-98		RTOP 297-90-00	
333, 334		868, 869, 870, 871	
RTOP 274-00-99		RTOP 323-27-00	
302, 358, 425, 567, 840		220	
RTOP 282-10-01		RTOP 332-18-10	
3, 296, 297, 367, 657, 660		860, 863	

RTOP 344-16-50	726, 727, 728, 730, 731, 732, 733, 734,
573	736, 738, 739, 740, 741, 742, 744, 748,
	749, 750, 751
RTOP 370-21-08	RTOP 509-10-11
557, 558	48, 146, 147, 148, 180, 512, 513, 708,
RTOP 406-10-00	711, 746, 797
901, 905	RTOP 509-10-31
RTOP 428-31-01	5, 8, 131, 144, 145, 707, 709, 737
339, 340	RTOP 519-20-21
RTOP 469-80-39	224, 430
621	RTOP 519-31-61
RTOP 495-40-00	872, 873
378	RTOP 519-50-11
RTOP 505-598-7	706
758	RTOP 519-51-41
RTOP 505-63-36	735
772, 775	RTOP 522-04-11
RTOP 505-63-50	508
140, 141	RTOP 522-11-41
RTOP 505-63-87	460, 468, 470, 471, 485, 493, 494
266	RTOP 522-11-48
RTOP 505-64-10	257
714	RTOP 522-11-81
RTOP 505-68-30	38
101	RTOP 522-12-51
RTOP 505-90-52	268, 269, 273
362, 368, 369, 381, 382, 383, 386, 390,	RTOP 522-12-61
392, 393, 394, 399, 400, 403, 404, 405,	478
689, 691, 692, 693, 694, 695, 696, 697,	
698, 699, 700, 701, 702, 703, 724, 725,	

RTOP 522-13-31		RTOP 522-23-11	
304		32	
RTOP 522-13-41		RTOP 522-24-11	
261, 263		1	
RTOP 522-14-11		RTOP 522-25-21	
70, 128		25	
RTOP 522-14-21		RTOP 522-25-31	
108, 346, 347, 348, 353		11, 16, 52	
RTOP 522-17-31		RTOP 522-25-41	
338		103, 130	
RTOP 522-17-41		RTOP 522-31-11	
4, 842, 843		21, 37, 374, 387, 389, 413, 830, 831	
RTOP 522-17-51		RTOP 522-31-21	
207, 341		14, 35, 50, 97, 98, 99, 105, 120, 123, 132, 134, 136, 139, 142, 343	
RTOP 522-18-11		RTOP 522-31-31	
254, 255, 465, 756, 854, 855		17, 49, 113, 114, 129, 174	
RTOP 522-18-31		RTOP 522-31-61	
104, 467, 490		18, 44, 47, 82, 385, 388, 409, 424, 789, 790, 832, 833, 839	
RTOP 522-19-11		RTOP 522-31-71	
66		487	
RTOP 522-20-21		RTOP 522-31-81	
154, 350, 447		13, 15, 100, 102	
RTOP 522-21-51		RTOP 522-32-11	
51		232, 233, 317	
RTOP 522-22-31		RTOP 522-32-21	
45, 46		9, 26, 30, 440, 475, 476, 690	

RTOP 522-32-31		RTOP 522-63-11	
23, 42, 106, 124, 407, 408, 477, 503, 510, 511, 515, 710, 793		504, 764, 765, 766, 767, 768, 776, 784, 785	
RTOP 522-32-41		RTOP 522-63-31	
171, 473		313, 472, 495, 496, 507, 838	
RTOP 522-33-11		RTOP 522-63-41	
166, 719		246, 247, 279, 441, 841	
RTOP 522-33-31		RTOP 522-81-12	
402		7, 769, 780, 782, 815	
RTOP 522-33-41		RTOP 522-81-13	
717, 718, 720, 721		787	
RTOP 522-41-11		RTOP 522-81-14	
127		791, 792, 794, 795, 800, 804, 813	
RTOP 522-51-31		RTOP 522-81-15	
177, 179		781, 812	
RTOP 522-51-71		RTOP 522-81-16	
22, 27		434, 814	
RTOP 522-61-11		RTOP 522-83-11	
312, 322, 335, 497		489	
RTOP 522-61-21		RTOP 537-06-31	
161, 162, 167, 168, 169, 216, 705, 712, 755		265	
RTOP 522-62-11		RTOP 537-06-32	
111, 126, 519, 520		286, 301, 303, 323, 324, 325	
RTOP 522-62-21		RTOP 537-06-33	
805		251, 252	
RTOP 522-62-31		RTOP 537-06-34	
225		464	

RTOP 537-06-37		RTOP 538-03-15
514, 517, 806, 807		796, 799, 802
RTOP 537-06-46		RTOP 538-04-13
290, 299, 318, 319		94
RTOP 537-06-47		RTOP 538-07-15
274		810
RTOP 537-07-51		RTOP 538-08-14
36		610, 635, 650
RTOP 537-08-23		RTOP 538-08-17
163, 164, 165, 172		527
RTOP 537-08-33		RTOP 538-10-12
250		234
RTOP 537-09-20		RTOP 538-13-11
379		153, 227, 235
RTOP 537-09-21		RTOP 538-13-12
899		466, 492, 505, 760
RTOP 538-02-10		RTOP 538-14-12
239, 276		41
RTOP 538-03-11		RTOP 547-60-00
34, 803		208, 209, 210, 211
RTOP 538-03-12		RTOP 548-50-21
779		684
RTOP 538-03-13		RTOP 552-14-21
786		352
RTOP 538-03-14		RTOP 552-32-21
469, 783, 801, 809		10

RTOP 557-50-10		RTOP 581-20-31	
121		798	
RTOP 576-02-11		RTOP 621-25-05	
56, 58, 59, 60, 61, 62, 68, 75, 76, 77, 78, 79, 80, 81, 90, 93, 95, 96		553, 572, 574, 577	
RTOP 576-03-15		RTOP 621-45-20	
777		534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 554, 559, 580, 581, 761	
RTOP 577-30-10		RTOP 621-45-87	
55, 713		571, 582, 583, 584	
RTOP 577-30-31		RTOP 621-82-80	
342		640, 667	
RTOP 577-40-10		RTOP 622-29-26	
63, 64, 85, 86, 87		596, 612, 613, 614, 847	
RTOP 577-40-30		RTOP 622-43-31	
83, 84, 89		597, 603, 605, 606, 608, 619, 624, 632, 634, 636, 637, 638, 645, 662, 664, 674, 680	
RTOP 577-50-10		RTOP 622-43-41	
109, 110, 115, 116, 117, 118, 122		675	
RTOP 577-60-10		RTOP 622-56-37	
67, 71		344, 575	
RTOP 577-80-40		RTOP 622-57-35	
88		6, 526	
RTOP 581-10-11		RTOP 622-61-11	
12, 19, 40, 57, 119, 133, 449		524, 525	
RTOP 581-10-21		RTOP 622-63-03	
240, 241, 243, 461, 491, 498		531	
RTOP 581-20-21			
125, 143, 149, 151, 771			

RTOP 622-63-06		RTOP 632-10-14
530		215, 217, 295, 309, 321, 327, 484, 486, 509, 516
RTOP 622-63-08		RTOP 632-62-00
588		349, 360, 361, 488
RTOP 622-63-13		RTOP 632-64-00
354, 355, 356, 451, 522, 555, 560, 562, 622, 834		293, 320, 455, 502, 883
RTOP 622-63-14		RTOP 632-84-01
532		881, 884, 886
RTOP 622-63-17		RTOP 698-00-00
551		184
RTOP 622-65-34		RTOP 704-20-21
556, 561, 565, 615, 623		414, 415, 416, 433
RTOP 622-67-65		RTOP 705-03-11
816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829		204
RTOP 622-68-51		RTOP 705-03-12
578		155
RTOP 622-96-00		RTOP 706-11-11
548, 550, 587, 604, 609, 625, 642, 643, 648, 661, 663, 666, 682		264, 271, 272, 275
RTOP 632-02-00		RTOP 706-11-21
483		716
RTOP 632-04-00		RTOP 706-11-31
288, 501		91
RTOP 632-05-00		RTOP 706-12-11
479, 480, 481, 482		107
		RTOP 706-12-21
		259, 260, 270, 280, 357, 499, 500, 757, 762, 763, 853

RTOP 706-12-31		RTOP 706-81-13	
231, 332		773	
RTOP 706-13-11		RTOP 706-81-14	
406, 808		774	
RTOP 706-13-31		RTOP 712-01-21	
314, 315, 316, 422, 729, 743		462	
RTOP 706-13-41		RTOP 712-10-21	
238, 277, 421		226, 242, 463	
RTOP 706-17-21		RTOP 712-20-21	
747		770	
RTOP 706-31-11		RTOP 713-10-61	
370, 371, 372, 373, 401		458	
RTOP 706-31-21		RTOP 713-23-02	
31, 137, 410, 411, 722, 723, 752, 753, 754		245, 298, 308, 329, 336	
RTOP 706-31-31		RTOP 713-23-04	
170		380	
RTOP 706-31-51		RTOP 714-01-27	
788		641	
RTOP 706-32-11		RTOP 714-05-01	
310		345	
RTOP 706-51-31		RTOP 714-05-10	
24, 156, 157		112, 311	
RTOP 706-51-71		RTOP 728-20-10	
158, 159, 160		138	
RTOP 706-61-11		RTOP 728-30-10	
281		65, 69, 152	

RTOP 728-60-10		RTOP 992-20-03
72, 92		176, 178, 181, 182, 419, 420, 436, 437, 438
RTOP 735-30-03		RTOP 992-20-08
205		39
RTOP 736-30-01		RTOP 992-30-11
192		687
RTOP 736-30-03		RTOP 992-35-12
187, 188		417, 423
RTOP 781-20-11		
778		
RTOP 853-10-00		
686		
RTOP 859-00-00		
185, 186		
RTOP 865-10-03		
195		
RTOP 896-10-00		
206		
RTOP 953-20-00		
183, 202, 203, 212, 213, 875, 876		
RTOP 992-10-01		
150		
RTOP 992-16-05		
861, 867		
RTOP 992-20-01		
439		

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 07704-0188
<p>Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</p>			
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED	
	February 2001	Technical Memorandum	
4. TITLE AND SUBTITLE	5. FUNDING NUMBERS		
NASA Langley Scientific and Technical Information Output—2000			
6. AUTHOR(S)			
Harriet B. Machie and Susan H. Stewart, Compilers			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)	8. PERFORMING ORGANIZATION REPORT NUMBER		
NASA Langley Research Center Hampton, VA 23681-2199	L-18060		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSORING/MONITORING AGENCY REPORT NUMBER		
National Aeronautics and Space Administration Washington, DC 20546-0001	NASA/TM-2001-210657		
11. SUPPLEMENTARY NOTES Available electronically at the following URL address: http://techreports.larc.nasa.gov/ltrs			
12a. DISTRIBUTION/AVAILABILITY STATEMENT		12b. DISTRIBUTION CODE	
Unclassified—Unlimited Subject Category 82 Availability: NASA CASI (301) 621-0390		Distribution: Nonstandard	
13. ABSTRACT (Maximum 200 words) This document is a compilation of the scientific and technical information that the Langley Research Center has produced during the calendar year 2000. Included are citations for Special Publications, Technical Publications, Conference Publications, Technical Memorandums, Contractor Reports, Journal Articles and Book Publications, Meeting Presentations, Technical Talks, Tech Briefs, and Patents.			
14. SUBJECT TERMS		15. NUMBER OF PAGES	
Bibliographies; Scientific and technical information; Documentation; Indexes		157	
		16. PRICE CODE	
		A08	
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	UL